

**STRATEGIES AND CONSTRAINTS OF LOCAL AND EXTERNAL CAPITAL:  
THE DYNAMICS OF TASMANIA'S MANUFACTURING ECONOMY,  
1980-1985**

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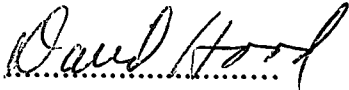
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Signed:   
David E. Hood

## ABSTRACT

The objective of this thesis is to analyse the current structure of manufacturing in Tasmania, in terms of enterprise size, location of ownership and control, and other attributes of enterprises which are relevant to the processes of change in regional economic structure and employment. The thesis argues that this is dependent on an understanding of management behaviour and strategy. To satisfy this objective, research adopts a neo-Marxist perspective which emphasises the dynamics of accumulation, power, crisis and conflict within capitalist production. Empirical research evaluates the dynamics of production activities, utilising a process-based approach to investigate the underlying mechanisms producing change within the economy, with particular reference to the specific historic, social and spatial conditions within which these mechanisms are operating. The key element of this process-based approach is an intensive study of 166 manufacturing enterprises throughout Tasmania, centring upon their activities between 1980 and 1985. The research builds upon a narrow range of theoretically-informed studies which focus upon the role of enterprise managers as individual and dynamic actors in generating structural change.

As a conceptual structure, research is organised within the segmented economy framework developed by Taylor and Thrift (1981a, 1982a). The segmented economy framework is particularly valuable in that it recognises the variability of enterprise strategy and the importance of power relations both within and between business enterprises. Within the thesis, power relations assessed are those between Tasmanian establishments of multi-site enterprises, independent enterprises in Tasmania, and Tasmanian branch plants and their head offices located outside the state.

In terms of total enterprises, Tasmania's manufacturing sector is dominated by small and medium-sized owner-managed indigenous firms manufacturing largely for the limited local market. In terms of employment, however, the state's manufacturing sector is dominated by a few large non-locally owned enterprises manufacturing resource-based, and to a lesser extent filtered-down, products for markets outside the state.

Within virtually all indigenous and non-locally owned multi-site firms, branch establishments hold very little power, as most are both small and functionally dependent upon the Tasmanian head office. Within non-locally owned enterprises, the degree of power granted to Tasmanian managers is also low, as control over the relations of economic ownership and possession of capital is held by senior managers of the parent organisation located outside the state. While a number of manufacturers are engaged in

either subcontract or franchise activities, few firms are dependent upon these relationships for a large share of their total income. In addition, most inter-organisational relationships are between firms of similar size. Only a few small indigenous firms are operationally dependent upon large manufacturers.

The constraints to growth and strategies adopted by Tasmanian manufacturers between 1980 and 1985 are highly complex. Less than one-half of both indigenous and non-locally owned enterprises adopted dominant strategies which were expansion-based over the study period. While most small and medium-sized indigenous operations maintained their level of employment, the majority of both large indigenous and non-locally owned firms shed jobs in an attempt to restructure their operations by reducing the amount of labour-time required in the production process.

While small and medium-sized indigenous firms appear most likely to generate future employment growth within the state's manufacturing sector, significant job gains can only be realised over a long period as few managers of indigenous operations possess the desire or ability to expand markedly the scale of their operations. The dynamic nature of Tasmania's manufacturing economy highlights both the utility of a process-based approach to the study of business organisation, and the need to continually monitor the changes taking place within regional economies.

The author concludes the study pinpoints important aspects of the relationships and behaviour which help to explain changing patterns of industrial activity and employment in Tasmania, and that the extension of the segmented economy approach to a detailed regional study of intra and inter-organisational power relations was both valid and extremely worthwhile.



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## ABBREVIATIONS AND ACRONYMS

Following is a list of abbreviations and acronyms used throughout the thesis. In addition, all dates given in the text, tables and figures are based upon the Australian financial year which begins 30 June. Any reference to 1985, for example, would refer to the 12 months between 30 June 1984 to 30 June 1985.

ABS	Australian Bureau of Statistics
ACL	Automotive Components Ltd
Adsteam	The Adelaide Steamship Company
AMC	Australian Manufacturing Council
ANM	Australian Newsprint Mills, Ltd
APM	Australian Paper Manufacturers
APPM	Associated Pulp and Paper Mills, Ltd
ASEAN	Association of South East Asian Nations
ASIC	Australian Standard Industrial Classification
BHP	The Broken Hill Proprietary Co, Ltd
BIE	Bureau of Industry Economics
BIL	Brierly Investments Ltd
CAD/CAM	computer aided design and manufacture
CER	Closer Economic Relations agreement
CPI	consumer price index
CSR	Colonial Sugar Refineries, Ltd
DID	Department of Industrial Development (Tasmania)
EEC	European Economic Community
EZ	EZ Industries Ltd
f.o.b.	Free on board
GDP	gross domestic product
ha	hectare(s)
HEC	Hydro-electric Commission (Tasmania)
HMA	Holyman Monds Affleck Ltd
IAC	Industries Assistance Commission
INCB	International Narcotics Control Board
IEL	Industrial Equity Ltd
kW	kilowatt
LGA	Local Government Area
MIC	management and investment company
MICLB	Management and Investment Companies Licensing Board
mL	millilitre
MTIA	Metal Trades Industry Association
MW	megawatt
NAFTA	New Zealand Australia Free Trade Agreement
NBH	North Broken Hill Holdings, Ltd
NIDL	new international division of labour
NIES	National Industry Extension Service
NSW	New South Wales
NT/ACT	Northern Territory/Australian Capital Territory
NZFP	New Zealand Forest Products
OECD	Organisation for Economic Cooperation and Development
pa	per annum
QLD	Queensland
SA	South Australia
SD	Statistical division
TAS	Tasmania

TDA	Tasmanian Development Authority
TEMCO	Tasmanian Electro-Metallurgical Company, Ltd
TFDA	Tasmanian Fisheries Development Authority
TFES	Tasmanian Freight Equalisation Scheme
tpa	tonnes per annum
TPFH	Tasmanian Pulp and Forest Holdings, Ltd
TNC	transnational corporation
UMT	United Milk Tasmania Ltd
VIC	Victoria
WA	Western Australia

### **ENTERPRISE CONFIDENTIALITY**

The empirical chapters within this thesis are largely based on interviews undertaken with 166 senior managers of manufacturing enterprises throughout Tasmania. As a condition of each interview, respondents were assured that details obtained in the survey relating to potentially sensitive issues such as employment, turnover, investment and competitive strategies would not be published without their prior consent. Names of firms have been used where the source is publicly available (eg. from annual reports and newspapers) and where consent for the firm's name to be used with interview data has been given. The names of firms are not given where it would breach the understanding of confidentiality. Throughout the thesis, some firms are thus referred to by name while others are identified only by the industry in which they operate.

## **CHAPTER 1**

### **INTRODUCTION AND THEORETICAL DEVELOPMENT**

## 1.1 INTRODUCTION

Much has been written in recent years on the role of large and small business organisations, and of local and non-local ownership in regional development. It is clear from this literature that enterprise size and ownership are useful categories in understanding some of the different processes which influence enterprise strategy, decision-making and spatial patterns of economic activity. Unfortunately, analyses of large and small enterprises on the one hand, and indigenous and non-locally owned enterprises on the other, have largely been conducted quite independently, and there is a paucity of literature linking the two groups.

The purpose of this study is to analyse the manufacturing sector of the Tasmanian economy in terms of enterprise size, location of ownership and control, and other attributes of enterprises which appear important in determining enterprise behaviour and strategy. To fulfil this purpose it is considered necessary to adopt a process-based approach which explicitly recognises both the structure and dynamism of the capitalist system of which the Tasmanian economy is a part, and the varying objectives and capacities of the individuals involved in decision making. Relationships of relative power and dependence between enterprises, labour and the state are also important, as is a consideration of the unique features of the local environment which cause the capitalist system to have the particular expression it does in the study area. Included within this is the need for a historical perspective of the social and spatial evolution of the area, to understand the antecedents of the present structure of production activity.

Given these requirements, it is necessary that the study is grounded in theories which most adequately conceptualise the dynamics of capitalist production and the ways in



which individual business organisations interact within the capitalist economic system. In particular, a framework developed from Marx's conceptualisation of the capitalist system is accepted as the most useful general theoretical position from which to examine the nature of capitalist production. By highlighting the importance of crisis, conflict and power relations between social classes a Marxist-based framework is able to suggest, by means of abstraction, the general social and economic structures through which the accumulation of capital takes place. Throughout the study, these general structures are related to concrete situations by identifying the specific processes through which they are operating in Tasmania. In focusing upon the activities of individual business organisations, the empirical study is structured within the segmented economy framework developed by Taylor and Thrift (1981a), as it currently represents a most useful conceptual structure through which to undertake a process-based approach to business organisation. The segmented economy framework is particularly valuable in that it recognises the variability of enterprise strategy and the importance of power relations both within and between business enterprises.

The primary objectives of the thesis are:

1. To define the current structure of manufacturing in Tasmania, in categories useful for understanding processes at work, and with particular reference to the implications of indigenous and non-local ownership, enterprise size and the nature of power relations within and between enterprises.
2. To describe processes involved in the dynamics of structural change and enterprise strategy in Tasmanian manufacturing, with particular reference to the period since 1980.
3. To expand the utility of the segmented economy approach of business organisation, by using empirical evidence based upon a regional economy.

In centring upon the activities of business organisations, the thesis builds upon a relatively narrow range of theoretically-informed studies which focus upon the role of enterprise managers as individual and dynamic actors in generating structural change. As Taylor (1984b) notes, there exists '...a clear need to more carefully consider the role of the enterprise or business organisation in the realisation of industrial and economic

restructuring' (p. 3). Although other authors such as Baron and Bielby (1980), Hayter (1981), and Marshall (1982a) have given support toward enterprise-based research, only a few studies have been published to date. In Australia, such studies have included Taylor and Thrift's (1981a, 1982a, 1984) work on segmentation, the corporate case studies presented by various authors in Taylor (1984a), and Hanson's (1985) research on manufacturing linkages in Launceston.

## **1.2 THEORETICAL CONSIDERATIONS**

The following sections outline the theoretical basis for the thesis, from which empirical research is structured. Discussion begins by summarising the key elements within a process-based approach, and highlighting some of the recent literature in which authors have centred upon processes taking place at the level of business enterprise. The link between abstract theory and a process-based approach is identified, and neo-classical and Marxist theories of capitalist development are evaluated in light of their ability to provide a general framework within which to examine the dynamics of structural change. It is then suggested that a new conceptualisation has become a necessity within industrial and regional research as the internationalisation of economic activity has given rise to new and more powerful forms of business organisation, the activities of which are increasingly complex. Regionally-based studies must operate within a theoretical framework which recognises the regional implications of capital restructuring on a global scale.

Finally, the segmented economy approach to business organisation is evaluated in light of its progression from behavioural and neo-Marxist approaches to research within industrial geography. It is suggested that the segmented economy approach is a useful conceptual framework within which to structure a process-based approach to business organisation, within the context of a dynamic capitalist environment.

## **1.3 THE PROCESS-BASED APPROACH TO ENTERPRISE RESEARCH**

Several recent studies linking structural change and the activities of business

organisations have adopted a process-based approach to empirical investigation ( Massey and Meegan, 1979a; Clarke, 1982a, 1984b; Fagan, 1984; Peck and Townsend, 1984; Le Heron, 1986). Rather than setting out to discover the recurrent regularities among enterprises, this thesis will focus upon the underlying mechanisms which produce change and the specific conditions within which these mechanisms are operating. Positivist studies based upon hypothesis testing make the assumption that concrete relations take place within a closed system, and can be appropriately tested against a theoretical model of pre-determined structures. However, as Williams (1981) notes:

'...the presupposition of closed systems imposes a passive element, insofar as the attendant assumption that laws are identified with a constant conjunction of events implies that a hypothesis (which in general describes an empirical regularity) is refuted simply by observation. By considering the existence of closed systems as nothing more than a special case, (a process-based approach) relinquishes any commitment to the ascription of reality by empirical criteria alone. Our objects of inquiry are not events, but the generative mechanisms and structures which produce manifest phenomena and which form the real basis for causal laws' (p. 37)

Fundamental to a process-based perspective is the understanding that economic and social processes are subject to change over time and space, and must therefore be examined in light of the mediating circumstances which produce them (Sayer, 1982, 1984, 1985a; Gore, 1984). In particular, Sayer (1982, p. 69-70) notes the importance of recognising that relations between objects involve both internal/necessary and external/contingent relations. Within the capitalist system, for instance, the relation between government and the taxation system is internal in the sense that the operation of each is to some extent dependent upon the existence of the other. However, the precise nature of their relationship is dependent upon a number of external and contingently related factors such as the current tax legislation, government taxation policies, and pressures generated by private enterprise. Thus, relations between objects such as government and the taxation system may generate entirely different outcomes, dependent upon the specific conditions which prevail at any one particular place and time.

For example, while the adoption of technology by industry is seen as a major cause of employment loss within manufacturing (Fothergill and Gudgin, 1982), the possibility

that new technologies may lead to additional employment cannot be ignored. Each outcome is dependent upon a number of contingent conditions such as corporate strategy, the nature of new technologies, the level of existing technology and market opportunities. The work of Massey and Meegan (1979b) suggests that employment change must be viewed in light of shifts in productivity as well as output, and that, for example, similar employment change figures for regions such as the South East and West Midlands during the 1970s were the product of very different combinations of processes taking place. While in the South East, net employment growth was associated with increases in output being above rises in productivity, the West Midlands experienced net employment growth resulting from low output growth and productivity losses.

Clarke's (1982a, 1984b) research focuses upon the new international division of labour within the UK based transnational ICI Ltd, suggesting that the current geographical pattern of labour use must be understood in terms of its historic, social and corporate specific context. For example, Clarke concludes that the internationalisation of ICI's plastics division outside the UK was primarily the result of a strategy aimed at establishing local market-oriented production facilities in North America and Western Europe. Clearly, research on the new international division of labour (NIDL) must consider factors other than employment, if the processes creating change are to be fully understood. The particular form which any spatial division of labour takes, differs within and between sectors, based upon specific corporate strategies and the changing conditions of production (Massey, 1978a). As Sayer (1982) has suggested, theoretical concepts such as the NIDL, product-cycle model and core-periphery relationships cannot bear too much theoretical weight, given that they do not fully address the underlying processes taking place which produce change. Such concepts require intensive empirical investigation in order to define and examine the specific circumstances within which they are operating.

Empirical research within this thesis evaluates the dynamics of structural change from the activities carried out at the level of business enterprise. Examination of processes which are influencing change are made within a historical and locationally specific context. In taking this approach, the thesis is able to focus upon the nature of specific relationships

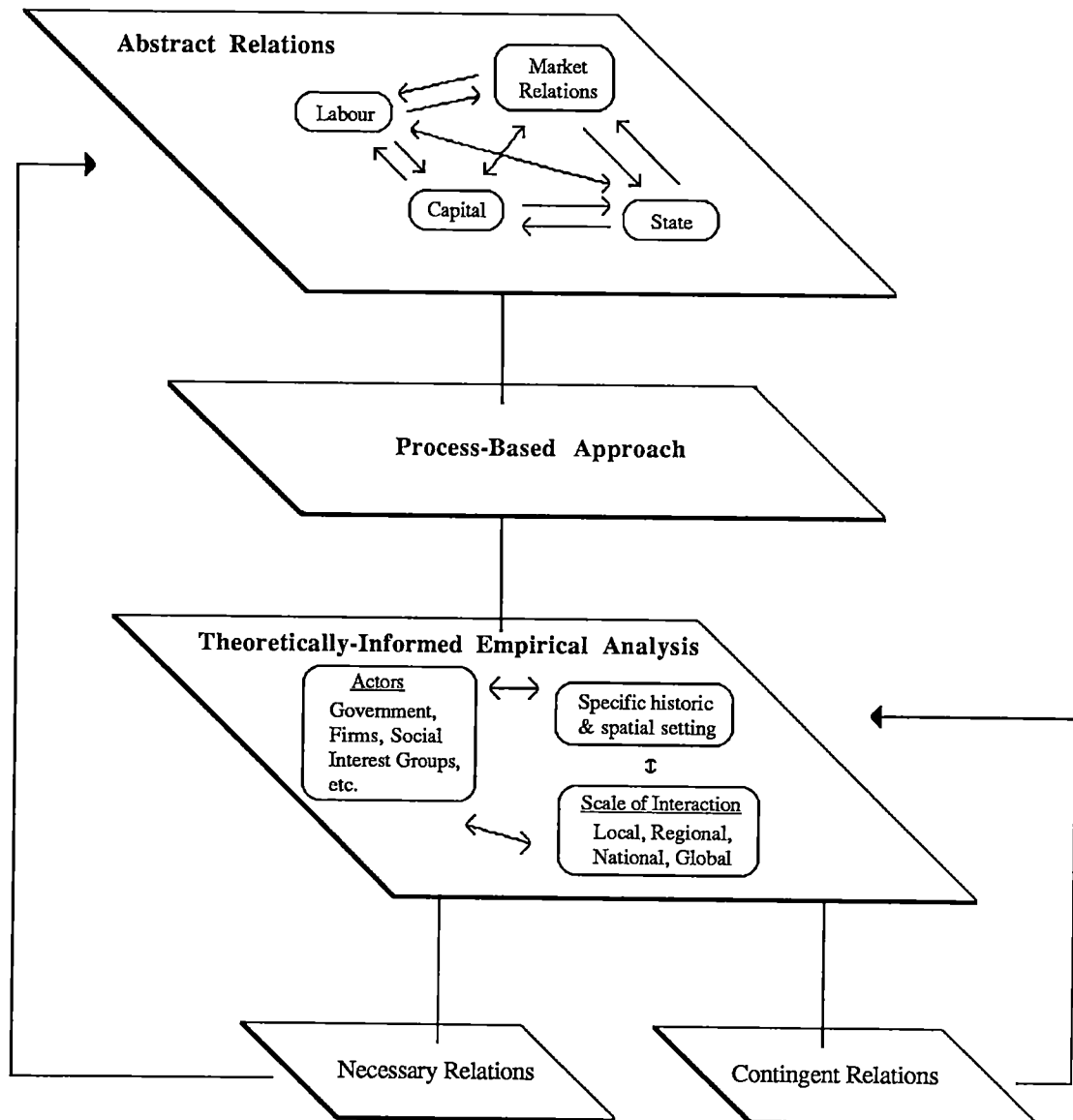
within and between business organisations which influence the performance of both individual enterprises and the Tasmanian economy. Examination of business organisations currently offers one of the most promising avenues of research within a theoretically informed process-based framework, as the business organisation is the level at which macro and micro forces within the economy interact and ultimately produce change.

#### 1.4 THE ROLE OF THEORY IN THE THESIS

In order to examine the structure and activities of business organisations in Tasmania, empirical research is organised within a framework grounded in the more general theories of the capitalist system. While abstract theories cannot be expected to lead directly to an understanding of the specific character of organisations in Tasmania, they are important in that they provide a general structure within which to examine the processes, such as those between capital and labour, which influence the particular expression of capitalism within the local area. Without this theoretical base, empirical research is likely to treat business organisations in isolation from the crucial external relationships which influence their performance within the region, and a process-based approach is likely to produce little more than a weakly structured collection of descriptive information. Abstract theory and a process-based approach are interrelated, in that the identification of process provides a bridge between abstraction and theoretically-informed empirical analysis (Figure 1.1).

In general, abstract theories emphasise the deterministic nature of market structures (eg. equilibrium and disequilibrium mechanisms) rather than the importance of individual actors (eg. government agencies and business organisations) in influencing economic and social change. However, a process-based approach is able to formalise abstract structures by examining their concrete situations, within which individual actors are operating (Sayer, 1985a; Wilde and Fagan, 1988). For example, while abstract theory might emphasise the general relations between the restructuring of capital and spatial divisions of

Figure 1.1: The Process-Based Approach in Industrial Research



Source: Author's summary

labour, a process-based approach would focus upon the specific form of such relations taking place in actual situations.

In developing a theoretical framework for the thesis, neo-classical approaches are firmly rejected as a useful way in which to examine the specific social and economic expressions of the capitalist system. Rather, a perspective which evaluates the ways in which regional inequality occurs within the capitalist system, is much more appropriate. The following sections outline the foundations for general theories of regional equality and inequality, emphasising the inadequacies of equilibrium theory in dealing with the dynamic nature of capitalist production, and the limitations of abstract theory in general.

#### **1.4.1 Neo-Classical Theory**

Although the neo-classical approach to development has, in recent years, been rejected by many regional theorists, it dominated growth theory and regional planning within many industrialised countries until at least the 1970s (Matthews, 1983). The neo-classical approach explicitly assumes that in a freely operating economy, apart from any forms of government intervention, market forces alone are sufficient to maintain balance among regions.

In developing a general equilibrium theory, neo-classical models assume that:

1. All firms operate within a perfectly competitive market, where prices are equalised through trade, and identical information and technologies are obtainable at any location.
2. There are zero transport costs.
3. Managers have perfect knowledge of all costs and benefits of all particular locations and scales of production.
4. Capital will locate at the point of highest rate of return to assets employed.
5. Labour is free to migrate away from areas of high unemployment and low wages.
6. The combination of 4 and 5 will guarantee full regional employment in the economy.

In abstracting from real world conditions the neo-classical approach derives the mechanisms which lead to equilibrium, manipulating capital, labour and other economic

resources as if they were simply passive and predictable objects operating within a closed system. Factors such as scale economies, consumer tastes and preferences, variation in the availability of resources, and the nature of innovation and technology, are all thrown together under the 'other things being equal' umbrella. By focusing upon the conditions leading to equilibrium in the economy neo-classical models are static, neglecting entirely the changing relations of economic and social activity. Any imbalance within the economy is considered to be the result of government interference rather than being flaws within a freely operating market system. For example, the regional economist Coucherne (1978a, 1978b) argues that, in Canada, federal transfer payments made to provinces have been a major factor in generating regional disparities.

Much like the neo-classical model, the Keynesian approach to capitalist development concentrates on the ways in which regional balance can occur within national economies, rather than on how imbalance does occur (Holland, 1976a). However, the Keynesian approach is different from the neo-classical in that it recognises that market forces alone are not sufficient to guarantee full employment and equal prosperity between regions. Capitalist economies are considered to be constantly shifting between periods of growth and stagnation, and it is believed that government action (primarily through its monetary and fiscal policies) is necessary to reduce these fluctuations in capitalist activity. Although Keynes himself was primarily concerned with the sectoral rather than spatial policies of government, the majority of regional policy initiatives during the post-war era, in countries such as Britain and Canada, were very much aligned to the Keynesian philosophy that government action could bring about equilibrium conditions. The creation of assisted areas and development zones, as well as incentives such as relocation grants, tax concessions and favourable access to resources which were granted to private industry, were all designed to increase the economic and social prosperity of lagging or peripheral regions within each country (Ewers and Wettman, 1980). While such policies met with limited success in the short term, it soon became evident that their narrow focus upon national issues was inadequate in dealing with the local impacts of the global recession and restructuring of capital which began to take place in the 1970s.



#### **1.4.2 Marxist Theory - The Dynamics of Capitalist Production**

In sharp contrast to neo-classical and Keynesian theories, Marxist approaches to industrial organisation and spatial development focus upon the dynamics of inter-capitalist competition and accumulation, suggesting that regional disparities are either a necessary precondition for the accumulation of capital (Harvey, 1982) or are '...simply unfortunate, but inevitable, by-products of the capitalist mode of production' (Browett, 1984, p. 156). The key element in the Marxist perspective is that capital accumulation is the driving force within capitalist society (Mandel, 1973; Amin, 1976; Holland, 1976b; Stilwell, 1982; Matthews, 1983), and is dependent upon the capitalist's ability to generate not only use-values (commodities having the capacity to satisfy human wants) but surplus-value (the value of commodities over and above the cost of wages paid to labour during the production process), which can then be re-employed as capital (Marx, Capital, V. 1, p. 579). Issues relating to crisis, power and inequality are central to the Marxist framework which recognises that regional disparity is the result of both economic and social processes occurring over space (Fine, 1982). Indeed, the writings of Marx focus primarily upon the unequal distribution of wealth among classes rather than regions. For Marx, 'the forces of production cannot be discussed without reference to class relations which grow out of them' (Matthews, 1983, p. 51). The capitalist class which, by definition, maintains control over the means of production, accumulates the surplus-value generated by other classes, such as those employed as wage labour, during the production process.

#### **Spatial Components**

From a Marxist perspective capital is invested not merely where it is most profitable, but also where organisations can maintain the greatest control over the accumulation of profits. The spatial distribution of capital is based upon organisational strategies which are influenced by a number of factors including the availability of labour, suitable markets, access to information and technology, and resources. Within most industrialised countries, the majority of capital is controlled from major urban centres which offer access

to large supplies of skilled and unskilled labour, a wide range of essential intermediate services and substantial markets (Watts, 1972; Westaway, 1974a; Marshall, 1979; Malecki, 1980; Oakey, et al, 1980). For example, as early as 1963 some 93 per cent of Australia's 887 largest corporations' financial assets were located in Melbourne and Sydney, with the trend toward increased concentration of capital between the two cities continuing into the 1980s (Taylor and Thrift, 1980; O'Connor, 1986).

Marxist theory asserts that the accumulation of capital within major centres is benefited by the existence of less developed regions which provide additional markets for externally based goods and services, as well as providing pools of labour for externally based organisations which choose to locate production facilities there. Leakages of profits and taxation revenue, and the transfer of raw or semi-processed materials to larger urban centres for the production of finished goods suggests that the way in which capital is invested over space, and the system of production which follows, largely determine the forms of capital accumulation and centralisation which take place. The majority of abstract Marxist literature contends that unequal class relations manifest themselves over space, with capitalists in highly developed areas asserting control over and benefiting from classes located in less developed areas, primarily employed in production activities.

Thus, regional disparities are seen as the result of capitalists located within highly developed regions, asserting and maintaining control over those located within less developed regions (LDRs), rather than the result of LDRs simply lacking the indigenous resources to generate economic and social wealth. According to Marx, the 'centralisation (of capital) completes the work of accumulation by enabling industrial capitalists to extend the scale of their operations' (Capital, V. 1, p. 627). Although Marx was concerned primarily with the sectoral concentration and centralisation of capital, many authors later extended the concept of accumulation into more precise spatial terms.

#### **1.4.3 Limitations to Abstract Theory**

In its pure abstract form, Marxist, as well as neo-classical theory, tends to assume that market structures ultimately determine the outcome of capital-labour relations (eg.

generate equilibrium or accumulation). In abstracting from real world conditions, both theories are unable to detail the role of government and business organisations in the process of spatial development. The importance of institutional factors such as trade barriers and national wage policies, which have greatly influenced the economic and social development in countries like Australia, are widely neglected at the abstract level. As Sayer (1985b) points out, abstraction also tends to separate processes from the concrete spatial forms within which they operate. As a result, the dynamics of space are often either disregarded or evaluated as phenomena independent of economic and social processes taking place. The adherence to this 'spatial separatist theme' is considered by several authors to be one of the key weaknesses in regional theory (Sack, 1974, 1980; Gore, 1984, Massey, 1984).

However, from the preceding discussion it is concluded that abstract Marxist theory provides the most useful general framework from which to undertake a process-based study of capitalist behaviour. By focusing upon the organisation of capitalist production and the importance of power in determining class relations, Marxist theory is much more dynamic than neo-classical approaches focusing upon market exchange mechanisms which lead to general equilibrium.

Recent debate concerning abstraction (Sack, 1980; Sayer, 1982, 1985b, 1985c) has come at a crucial time in the evolution of neo-Marxist theory, as the concern for conceptualisation within geographic research has grown, and neo-Marxist approaches are providing the foundation for an increasing number of studies. Sayer's concerns regarding abstraction centre upon several issues, the most notable being what he terms 'misleading stereotypes' of the spatial division of labour, the product-cycle theory, branch plant economies and patterns of foreign direct investment (Sayer, 1985b). In each case, (and for abstract theory in general), Sayer warns that research must not assume that concrete forms can be 'read off' directly from abstract relationships. Instead, research must consider the specific circumstances within which branch plants, product-cycles, etc. are functioning.

The following paragraphs illustrate the need for greater conceptualisation within industrial research, emphasising the dramatic increase in international business activity and Marxist-based contributions to research on crisis and restructuring.

### **1.5 THEORETICAL NECESSITY AND THE INTERNATIONALISATION OF ECONOMIC ACTIVITY**

Since the late 1970s, research in industrial geography has begun to place greater emphasis upon the conceptualisation of processes which produce industrial restructuring. In part, this is due to both the decline in policy-oriented research (particularly in the UK) and the push by a number of researchers to bring theory back into the mainstream of industrial research (Marshall, 1982a; Wood, 1982; Massey, 1984; Sayer, 1985a). Most industrial research undertaken in the 1970s was concerned primarily with the activities of business organisations and economic restructuring within national boundaries.

These studies touched upon numerous issues including corporate organisation (Erickson, 1980), product-cycles (Park and Wheeler, 1983, 1984), research and development (Thwaites, 1977, 1978a; Malecki, 1980), information flows (Westaway, 1974a; Goddard and Pye, 1977), industrial location (Townroe, 1972; Wood, 1978) and the implications of non-local ownership within regions (Atkins, 1973; Fim, 1975; Dicken, 1976). While this research did much to develop the understanding of business organisations within industrial geography, it was later criticised for its failure to develop a theoretical framework within which to examine the business enterprise (Taylor, 1984b), and its inadequacy in dealing with the effects of international forms of industrial restructuring (Thrift, 1985). The national orientation of much of this research was, in part, related to the formulation and evaluation of Keynesian-based employment policies implemented during the 1970s (Ewers and Wettmann, 1980). By the end of the 1970s, when it was evident that Keynesian policy measures had failed to address the underlying causes of regional decline, industrial research was forced to reconsider its position in relation to development issues.

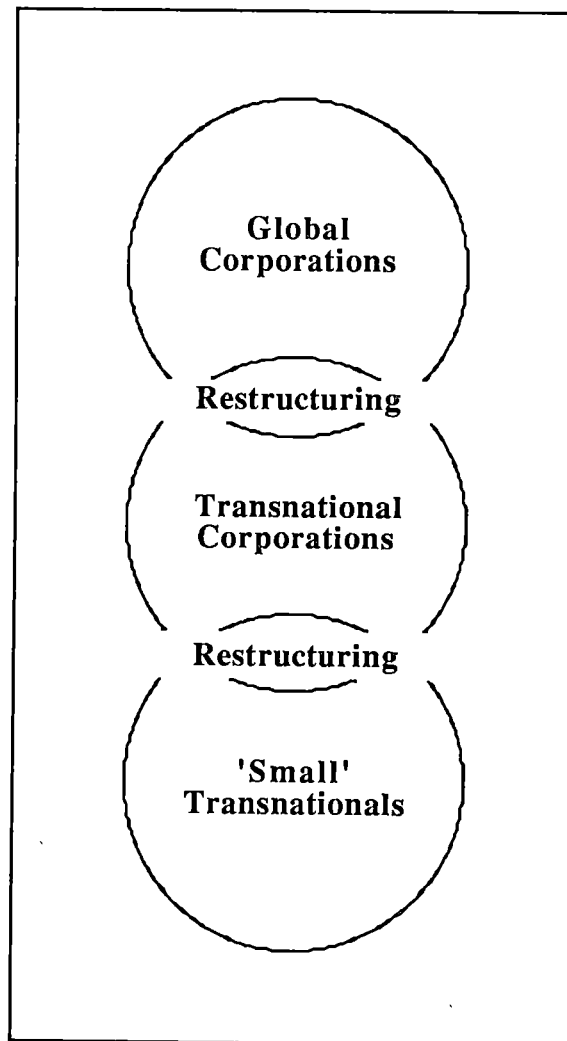
Crises in theory are often associated with crises in the real world, as established theories lack the flexibility to address new forms of social and economic relations

(Massey, 1984, p. 3). Most certainly, the movement toward more intensive theoretical consideration has become a necessity within industrial geography, brought about, in part, by the need to develop a framework within which to examine the dynamic changes in capitalist production over the past two decades. Most notable has been the growth of transnational corporations (TNCs), which has had a profound effect upon the distribution of production activities and the creation and maintenance of uneven development.

Although TNCs have been in operation for over a hundred years (Hertner and Jones, 1986; Dixon *et al.*, 1986), they received very little attention until the 1970s when the dramatic growth in both the number and net assets of TNCs generated a massive amount of literature within economics and geography. While the majority of economic research has been highly quantitative, dealing with the development and structure of TNCs, the geographic literature has contributed primarily to the valuable qualitative debate linking the activities of TNCs, the new international division of labour, and implications of uneven spatial development (Susman, 1981; Clarke, 1982a, 1984b; Watts, 1982). The increasing number and power of TNCs have greatly influenced the global distribution of production, investment, and labour utilisation. Taylor and Thrift (1982c) note that although the size of TNCs has tended to increase since 1970, a greater number of small TNCs have also emerged and taken advantage of foreign production opportunities. The growth of TNCs has also reduced the effectiveness of many national and regional development policies as corporate expansion and diversification are undertaken on a worldwide basis, often bypassing less developed regions within the host country in favour of more attractive locations internationally (Watts, 1980).

Authors including Taylor and Thrift (1982a, 1982c, 1984) and Gibson and Horvath (1983a, 1983b) have suggested that an even more complex form of business organisation, the global corporation, has developed as transnationals continue to expand and diversify their operations (Figure 1.2). For the global corporation, international activities often incorporate multiproduct operations located in many countries, structured within several semi-autonomous operating divisions. According to Clarke (1982b), the most distinct characteristic of the global corporation is its focus upon global strategies which view the

**Figure 1.2: The Diversification of Transnational Capital**



Source: Adapted from Taylor and Thrift, 1986, p. 6.

world as one market, rather than as a collection of separate and distinct national markets. Other commentators including Gibson and Horvath (1983b) stress that it is global production systems which differentiate global from transnational capital. In either case, the diversity of activity and autonomous nature of the global corporation's international operations further lessen the corporation's ties to the host country within which it is based.

The internationalisation of business activity represents a significant development within the world economic system, where for the first time workers in industrialised countries must bid for their share of employment on the global labour market. The worldwide recession of the 1970s brought an end to the unprecedented growth in economic activity which took place in industrialised countries during the 1950s and 1960s. Rising inflation, energy costs, and the increasing power of labour have all contributed to a general decline in the rate of profit realised by capital, reducing the attractiveness of industrialised countries as locations for firms to invest and expand their operations. Conversely, a few less developed countries (LDCs) including some in Asia, Latin and South America, and Africa have, for a number of reasons, become viable alternatives as locations for investment. Fröbel, *et al.* (1980) outlines several preconditions which have facilitated the internationalisation of capital, in general, and the shift in investment between industrialised and less developed countries, in particular.

First, many LDCs have an almost inexhaustible supply of labour, particularly in urban areas. The introduction of agricultural capital which reduced the labour requirements within rural areas has led to an increase in rural-urban migration as people search for employment alternatives. Labour costs are very low within most LDCs, often only 10-20 per cent of those in industrialised countries (Table 1.1). Moreover, labour within most LDCs is not unionised and generally non-militant, giving capital greater control in setting wage and employment levels. Workers are also available for shift work, night work, working on weekends and longer working hours, often at productivity levels similar to those realised in industrialised countries.

Second, the nature of technology and production processes within business organisations expanding into LDCs often permits the development of several specialised

**Table 1.1: Table of Comparative International Labour Costs in the Textile Industry, April 1981**

Country	Single Shift		Double Shift		Treble Shift	
	Total Cost per hr.	Index	Total Cost per hr.	Index	Total Cost per hr.	Index
UK (base)	2.678	100	3.186	100	3.481	100
Italy	3.259	122	3.499	110	4.943	121
West Germany	3.561	133	3.696	116	3.913	115
Canada	3.596	134	3.564	112	3.613	109
United States	3.134	117	3.134	98	3.157	96
Portugal	1.076	40	1.777	37	1.799	42
Colombia	0.950	36	1.121	35	1.304	26
Brazil	0.840	31	1.009	32	10.65	31
Peru	0.611	23	0.620	19	0.637	19
India	0.342	13	0.345	11	0.416	11
Philippines	0.276	10	0.276	9	0.282	8
Indonesia	0.166	6	0.169	5	0.168	5

Source: From Taylor and Thrift (1982c), (eds.), The Geography of Multinationals, p. 7.



plants, each producing componentry or a narrow range of finished products. This type of fragmented production structure reduces the time required to train labour at each plant, as many tasks can be carried out with minimal levels of skill. Fröbel also argues that by maintaining a workforce of low or semi-skilled workers, capital is able to ensure greater control over labour within LDCs.

Finally, the vast improvements which have taken place in management and transport technology have also facilitated the shift in investment between industrialised and less developed countries. Advances in bulk and container shipping, airfreight, data processing and satellite communications has meant that for certain industries the location of management and production is, in part, independent of distance. Lower production costs realised in LDCs may far outweigh increases in transport or communication costs. For example, the US based Unisys Corporation produces electronic components in Brazil, airfreighting them to plants in Texas and California where they are integrated into the company's computer hardware. Although the freight charges represent a significant part of the production cost structure, the low cost and high productivity of the workforce have made Unisys' operations in Brazil highly profitable (Unisys Corporation, 1987).

The explanations for transnational development within LDCs must clearly be examined in light of their historical and corporate specific context. Much depends on both the nature of the industry and the development strategy of the LDC involved. For example, certain industries such as textiles, publishing and electronics may be better suited to LDC locations than others such as machinery and heavy engineering. In addition, the establishment of production free zones and other state inducements to overseas investment determine the type and level of business activity attracted to LDCs. Simply to suggest that transnational business organisations locate in LDCs in an attempt to gain control over labour and to maximise absolute surplus-value, is highly anachronistic (Henderson, 1986), particularly since the majority of foreign direct investment since 1970 has taken place within and between industrialised nations (Gaffikin and Nickson, 1984; Morris, 1987). Taylor (1985) also questions the importance of LDCs as locations for labour-intensive mass production of products in the final stages of their product-cycle. Taylor

argues that explanations of LDC location based upon the product-cycle model make the erroneous assumptions that mass production needs to be labour intensive and that high volume production is the only way to achieve cost savings.

It is clear, however, that the internationalisation of business activity has greatly influenced (either directly or indirectly) the performance of national and regional economies on a global scale. In their search for profit, many large national and transnational corporations have adopted an investment strategy which favours new overseas development over the expansion of existing operations, or which actually rationalises existing operations by centralising a portion of the production process at a new investment location. For example, in 1984 the UK based transnational Cadbury Schweppes PLC closed the cocoa bean processing operations at its Malaysian, Australian and New Zealand plants, establishing a centralised cocoa mass production facility in Singapore, MacRobertson Foods Pte Ltd, which currently supplies the group's Pacific requirements. Although each of these plants function within autonomous operating divisions, the decision to centralise cocoa production in Singapore was made in the UK, on the basis of group strategy and profitability rather than on an assessment of how such a decision would affect the local region within which each plant is located. Moreover, organisations which significantly reduce their production costs by successfully investing in LDCs, may greatly affect the competitive position of other plants bidding for a share of the worldwide product market. A joint venture between the government of Thailand and Belgium interests in 1984, for instance, resulted in the establishment of a 60,000 tonne per annum zinc smelter which has adversely affected the sales performance of other zinc producers in Australia and South America, competing in the Pacific region (EZ Industries Ltd, 1986). In order to encourage foreign investment, the government of Thailand offered major concessions to capital, including the subsidisation of construction costs and guarantees minimising the rate of wage increases.

Given the significant growth in international forms of economic activity, it has become imperative that regionally-based studies of industrial change are based upon theories which address the nature of external forces influencing change locally. This

requires that research is concerned not only with the strategies and decisions of capital at both the national and global scale, but also the implications of changing capital-labour and capital-state relations occurring over space. As Wood (1982) notes, such studies '...will need to emerge from a theoretical framework which can demonstrate the direct and indirect geographical impacts of technical change, of corporate and capital restructuring, of international competition and changing patterns of comparative advantage, and the operations of multinational companies' (p. 581).

At present, it is suggested that neo-Marxist theory offers the most comprehensive framework within which to examine the dynamics of capitalist production. The following section summarises the ways in which neo-Marxist approaches have attempted to structure the relationships between economic crises, the internationalisation of capital, and changes in the relations of capitalist production over space.

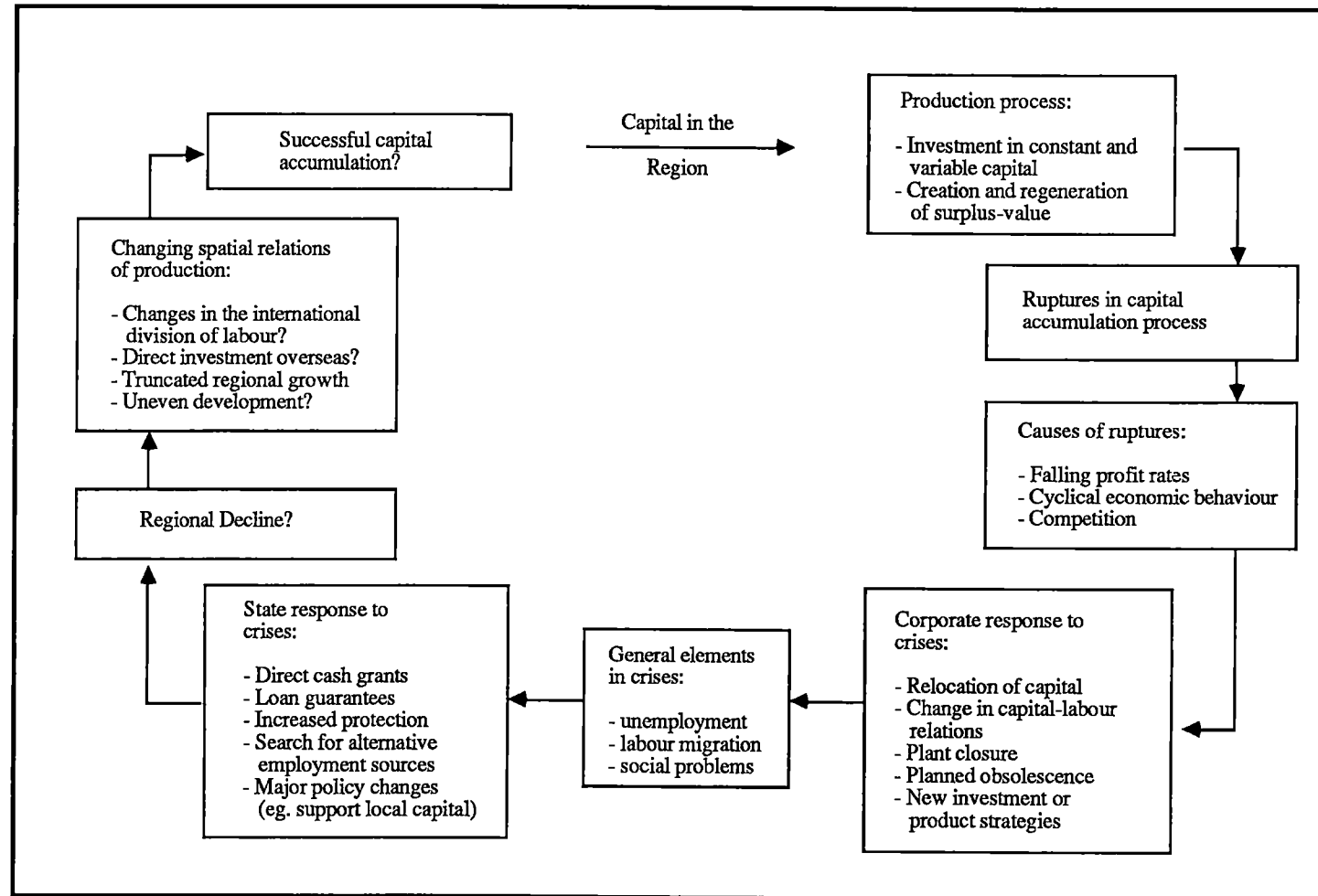
#### **1.6 NEO-MARXIST INTERPRETATIONS - CRISIS AND RESTRUCTURING IN THE GLOBAL CONTEXT**

Since the mid-1970s a number of researchers have attempted to extend abstract Marxist theory (discussed earlier) to explanations of the global restructuring of capital (Walker, 1978; Gibson and Horvath, 1983a, 1983b; Andreff, 1984; Massey, 1984). Although authors approach global restructuring from a number of Marxist interpretations, most would agree that transnational corporations are an inevitable outcome of the capitalist system of production, and that other existing economic theories are inadequate in dealing with the process of restructuring and growth of global capital (Fagan, et al., 1981). Moreover, while some research has linked the economic stagnation of the 1970s to factors such as the decline in growth-producing innovations (for example, see the literature following Kondratieff, 1979), neo-Marxists would claim that they fail to link stagnation with the underlying process of profitable accumulation which is the driving force of capitalist production.

From a neo-Marxist perspective, economic crises and the restructuring of capital involves four primary stages (Figure 1.3):

1. Ruptures in the process of capital accumulation.

Figure 1.3: Global and Regional Responses to Crises in Accumulation



Source: Extended from Bradbury, 1985

2. Corporate response to crises.
3. State response to crises.
4. Changes in the relations of production over space

#### **1.6.1 Ruptures in the Process of Accumulation**

The starting point for the creation of economic crises within capitalist production, is the disruption of profitable accumulation. Within the neo-Marxist literature the three factors most often considered responsible for the disruption of accumulation are increased competition, the fluctuations of business-cycles and the tendency for profit rates to fall (Weeks, 1982; Webber and Foot, 1984). Harvey (1975), suggests that the fluctuations of business-cycles are dependent upon variable movements in the rate of profit. As profit rates fall, so does the level of investment. Firms which survive downturns in profit are only able to generate new investment once new production relations are introduced, such as the adoption of new technology, product innovations, or changes in capital-labour relations. Once new investment is undertaken, the conditions for successful accumulation may return and create an upswing in the business-cycle.

The notion that the general rate of profit within capitalist production will decline in the long-term is often repeated within the neo-Marxist literature, and can be traced back to the original writings of Marx (Capital, V. III, p. 213). It is proposed that over time, the required investment in fixed capital becomes more expensive relative to the surplus-value which can be extracted from existing production processes, and since the ratio of surplus-value to the value of total capital investment determines the rate of profit, this rate must eventually fall. Others including Devine (1980) have evaluated the issue in more contemporary terms, implying that declining profit rates are often associated with over-investment in capital as organisations faced with increasing competition attempt to maximise short-run returns in the market place.

#### **1.6.2 Corporate Response to Crises**

Faced with crises in accumulation, the restructuring of capital in the corporate context can take many forms, some of which may have important spatial relations. During

restructuring, capital may seek to restore high rates of profits and accumulation by devaluing or replacing outdated fixed capital and by increasing its control over the labour process (Bradbury, 1985). Individual operations within the corporate structure are evaluated in terms of their productivity, profitability and the overall development strategies of the corporation. The options open to capital are many and varied, including the closure or sale of unprofitable operations, the transfer of operations to more profitable locations or the reorganisation of production and service functions within existing operations. Periods of economic depression and the subsequent restructuring which takes place, have a 'cleansing role' in the economy, as unprofitable operations are abandoned and investment is directed into more profitable activities (Stilwell, 1982).

According to Gibson and Horvath (1983a), the current phase of restructuring can be traced to declining sectoral rates of profit within the monopoly submode (primarily large national firms) of production. Firms which expanded the scope of their activities and increased their market power within national boundaries during the post war period had, by the 1970s, begun to encounter falling profits and increased competition from established national and emerging international organisations. In response to the crises in profitable accumulation, Gibson and Horvath argue that the monopoly submode gave way to a new global submode of production in the attempt to restructure production relations and restore the conditions for profitable accumulation. Global capital is much more mobile than monopoly capital since the evolution of production technology has enabled the development of smaller, specialised production sites to take place on a world scale. This being the case, capital's ability to relocate its production activities is increased, in as much as the costs of closure and relocation are relatively low. Thus, global pools of labour have become more accessible as the global submode of production has developed, the mobility of capital has increased as organisations continue to search for low cost, revenue producing locations for production segments within the globally-integrated production system.

### 1.6.3 State Response to Crises

While most neo-Marxist research focuses upon the corporate response to economic crises, the response by government also plays an important role in the process of corporate restructuring, through the introduction of either direct or indirect measures which influence the reorganisation and relocation of capital. As with private corporations, a wide range of options is open to the state during periods of crises, with the actions taken depending upon a host of conditions including the nature of crises within the indigenous and foreign sectors of the economy, the form of initial corporate response to the crises, and the state's policy toward appropriate short and long term solutions to the current crises. State aid to depressed industry may take the form of increased protection against imported goods, taxation allowances, grants for R&D and marketing, or more direct forms such as direct cash payments to industry. These forms of assistance demonstrate the accommodating nature of the state toward large corporations, particularly in light of the increasing mobility of capital and internationalisation of economic activity. The neo-Marxist position, which views the role of the state as managing the affairs of the capitalist class, stresses that '...the actions of the state follow more or less directly from the needs of capital' (Stilwell, 1983, p. 205). Solutions to crises may, however, be beyond the reach of governments, in which case they are forced to seek alternative sources of investment and employment.

The period of global economic recession following the crises of the mid-1970s has, in two respects, reduced the effectiveness of conventional forms of state development policy. First, recent developments in production-based technologies have generated an important conflict between employment and productivity. The competitive business climate of the past decade has dictated, more than ever, that capital must constantly increase its productivity in order to survive. At the same time, technological advances have enabled capital to achieve greater productivity by increasing the rate of output relative to the required labour inputs. The most visible outcome of this relationship has been the dramatic decrease in manufacturing employment within industrialised countries since 1970 (Handy, 1984). During periods of crises, corporate solutions in the short-run are more likely to involve changes in variable capital (labour) rather than changes in constant capital

which is much less flexible, particularly given the rapid development of potential labour-reducing technologies.

This recent tendency for capital to increase productivity at the expense of labour inputs within manufacturing stands in marked opposition to traditional state policies of employment creation. Prior to the 1970s, state policies were primarily aimed at increasing employment by encouraging (and at times, financing) increased output among producers. Now that dramatic changes have occurred within labour-output relations, the state must reassess its position in regard to employment policy. State response to crises must consider both the implications of employment loss within the community and the corporate sector's need to remain competitive.

Second, the growth and concentration of global capital have, for a number of reasons, reduced the power of individual federal and regional governments in dictating the terms of regional growth. Evidence suggests that the sectoral and spatial concentration of capital associated with the expansion of transnational and global corporations has led to the centralisation of corporate responsibility within large business organisations (Watts, 1972, 1981). In particular, the marked increase in take-over and merger activity, the route by which most large corporations have grown, has important implications in terms of the spatial reorganisation of corporate power and decision making. As business organisations have grown, responsibility has become more clearly divided between management responsible for growth strategies and management responsible for the day to day operations of the individual corporate segments. The acquisition of smaller and less powerful business organisations has often resulted in the transfer of their key operating functions and personnel to external head office locations, reducing the number of locally-based senior managers. Moreover, the newly acquired organisations may lose their sense of identity with, and any feeling of responsibility to, the local region. In effect, this reduces the power of the state in dealing with corporate restructuring, since local management is often removed from the creation of corporate adjustment strategies which influence the local operation (Westaway, 1974b).



In addition, the mobility and internationalisation of capital have increased the regional competition for new investment within industrialised countries. This often places national, state and local governments at odds with one another, as each attempts to secure (for its own 'region') a share of new business activity. From a neo-Marxist perspective, competition between governments plays directly into the hands of capital which seeks to gain the most favourable operating conditions possible. For example, the competition among state governments in Australia to attract investment in the post-war period has resulted in the states subsidising the operations of capital. Competition between the states encouraged the inefficient distribution of production resources as capital often took advantage of state subsidies by establishing a number of small plants in separate states.

#### **1.6.4 Changes in the Relations of Production Over Space**

As the preceding discussion suggests, corporate responses to crises in accumulation are dependent upon factors such as enterprise strategy, state action, and the continuing conflict between capital and labour. Together, these factors interact to form new relations of production under which capital is able to return to profitable conditions of accumulation.

Yet space also has an important role in the process of restructuring. Given that Marx was concerned primarily with class, rather than spatial relations of production, the neo-Marxist literature has presented a number of different scenarios as to how space and capital are related in periods of crises. At one extreme is the proposition that accumulation, and the conflict between capital and labour, occur independently of space. Space is simply a passive object upon which the impacts of the social reorganisation of production can be mapped. At the other extreme, 'space' is viewed as a causal factor in the restructuring process. As Sayer (1985c) notes, 'perhaps the most common error (in conceptualising space) is the implicit assumption that because space only exists where it is constituted by objects, it is wholly reducible to them' (p. 57). To suggest space itself as a causal factor eliminates any understanding of the actual processes involved in the spatial reorganisation of production.

Recent work by authors including Massey (1984, 1985), Sayer (1985c) and Urry (1985) calls for a more relational conceptualisation of space in which space and the process of restructuring are seen as interacting. In particular, the link between the restructuring of capital and spatial change must consider the existing spatial organisation of technology, labour, resources, etc. which influences enterprise strategy and the form which capital-labour relations take. Implicit within this conceptualisation is a concern for the historical conditions which have brought about the current organisation of locational opportunities over space. Although the spatial reorganisation of capital is not an inevitable outcome of the restructuring process, neo-Marxists argue that it is one of the fundamental means by which capital is able to assert and maintain its control over labour. Clearly, the degree to which capital is able to reorganise production over space, is determined by the factors of production (eg. labour and material requirements) specific to individual business organisations. For instance, in periods of crises, resource-based industries already committed to substantial levels of fixed capital investment are likely to have fewer adjustment options available to them than other, more mobile, industries.

Quite clearly, the internationalisation of capital has added a new and dynamic dimension to structural-spatial relationships as concentration of power on a global scale highlights, more than ever, the complexity of relations between regional, federal and global interests. 'In essence, our understanding of regional decline is a recognition that increasingly, no region is exclusive or independent, and that fluctuations which occur in a national economy, or indeed in the global factory, are the sum of the differences between and within regions' (Bradbury, 1985, p. 54).

#### **1.6.5 Empirical Applications of Neo-Marxist Theory**

The preceding discussion summarises the vast amount of neo-Marxist literature on crises and restructuring which has been published since the mid-1970s. Many of the earlier contributions to this literature (Harvey, 1975; Massey, 1978a, 1979) were, out of necessity, very abstract in their approach to regional economic and social change. This level of abstraction was to be expected, as neo-classical principles were so firmly

embedded within the regional literature, and the more radical interpretations of current regional issues were only just being expanded from the abstract writings of authors such as Marx.

By the early 1980s, neo-Marxist literature had become more widely published, as its acceptance as an alternative framework to neo-classical and Keynesian theory had grown. Although neo-Marxist conceptualisation had gained a larger following, the majority of publications remained abstract in scope, and calls were made for neo-Marxist literature to confront the contemporary empirical issues facing industrial geographers (Walker and Storper, 1981). Within the next few years, several important articles were published, including Dargavel (1984), Fagan (1984) and Taylor and Thrift (1984), which extended primarily Marxist-based concepts to empirical studies concerning business organisations and their role in producing structural change. The empirical contributions of Dargavel and Fagan are briefly summarised below, while the work of Taylor and Thrift is explored in greater detail later in the chapter.

The research undertaken by Dargavel and Fagan (both in Taylor 1984a), centres upon the capital, labour and state relations which have guided the development of Tasmania's pulp and paper companies (Dargavel, 1984), and Australia's largest industrial organisation, The Broken Hill Proprietary Co. Ltd (BHP) (Fagan, 1984). Dargavel's research suggests that the development of Tasmania's pulp and paper monopolies has demonstrated the degree to which large multi-regional companies are able to successfully accumulate capital and maintain control over the state, within a small, open economy. Moreover, reserve army of labour mechanisms, the extraction of surplus-value and the power of large over small business organisations are all discussed in light of their concrete forms within the Tasmanian pulp and paper industry.

Fagan takes a similar approach in his study of BHP, as the organisation's development is broken down and discussed in terms of five specific development periods. Within each period, Fagan details the particular set of capital, labour and state relations which existed, as well as their spatial consequences (Table 1.2). Initially established as a silver mining company over 100 years ago, BHP developed into a steel monopoly during

**Table 1.2: Capital Labour and State Relations in the Context of BHP's Development**

Period	capital	Principal relations between BHP Ltd and labour	the state	Main elements of geographical structure
SILVER MINER (1885-1915)	<ul style="list-style-type: none"> <li>- Melbourne-based; finance capital, inc. British &amp; German.</li> </ul>	<ul style="list-style-type: none"> <li>- unionisation at Broken Hill,</li> <li>- chronic conflict;</li> <li>- external control.</li> </ul>	<ul style="list-style-type: none"> <li>- competition between colonies (States) for investment,</li> <li>- concern over external control (SA, NSW).</li> </ul>	<ul style="list-style-type: none"> <li>- external control;</li> <li>- mine (NSW)</li> <li>- smelter (SA)</li> <li>- head office (VIC)</li> </ul>
NEWCASTLE PERIOD (1915-1935)	<ul style="list-style-type: none"> <li>- concentration of capital (scale, markets)</li> <li>- joint venture &amp; linkage;</li> <li>- interlocks with banks.</li> </ul>	<ul style="list-style-type: none"> <li>- growth of Newcastle workforce and community;</li> <li>- unionisation (coal &amp; steel),</li> <li>- turbulence in depression early 1930s (esp. coal);</li> <li>- severe hardships as a result of falling wage rates (1930s).</li> </ul>	<ul style="list-style-type: none"> <li>- infrastructural investment and reproduction of workforce (NSW),</li> <li>- beginnings of tariff protection (Federal),</li> <li>- prohibition of iron ore export (Federal).</li> </ul>	<ul style="list-style-type: none"> <li>- regional development in Newcastle area,</li> <li>- industrial linkage based on steel,</li> <li>- further development of iron ore mining (SA).</li> </ul>
STEEL MONOPOLIST (1935-1950)	<ul style="list-style-type: none"> <li>- centralisation of capital (AI &amp; S absorbed),</li> <li>- takeovers of British basic fabricators,</li> <li>- high vertical integration to maintain monopoly.</li> </ul>	<ul style="list-style-type: none"> <li>- consolidation of specialised industrial workforce at Newcastle,</li> <li>- beginnings at Port Kembla,</li> <li>- wartime mobilisation.</li> </ul>	<ul style="list-style-type: none"> <li>- use of iron resources in bargaining for new investment (SA),</li> <li>- wartime coalition between state and capital (BHP-Federal);</li> <li>- strategic dispersal (Federal).</li> </ul>	<ul style="list-style-type: none"> <li>- multilocal steel producer (NSW),</li> <li>- highly vertically-integrated production structure (inc. transport, shipyard),</li> <li>- beginnings of geographical dispersal (SA).</li> </ul>
DIVERSIFYING STEEL MONOPOLIST (1950-1970)	<ul style="list-style-type: none"> <li>- continued centralisation of capital,</li> <li>- increased interlocks with banks and financial institutions,</li> <li>- mineral boom: engagement with international capital.</li> </ul>	<ul style="list-style-type: none"> <li>- dispersal of workforces,</li> <li>- different awards at each production site,</li> <li>- growth of dependent industrial communities at Port Kembla and Whyalla,</li> <li>- 'divide and rule' strategy,</li> <li>- rapid growth of BHP workforces (inc. high proportion of migrants).</li> </ul>	<ul style="list-style-type: none"> <li>- use of iron resources in bargaining (WA),</li> <li>- competition between states for industrial development (NSW, WA, VIC),</li> <li>- heavy commitment of public sector resources to BHP production centres (SA),</li> <li>- immigration policy (Federal) tariff protection, policy on mineral exports &amp; capital inflow (Federal).</li> </ul>	<ul style="list-style-type: none"> <li>- rapid urban growth in steel centres,</li> <li>- fragmentation of steel production to maintain monopoly,</li> <li>- new mineral resource activity (WA, Vic).</li> </ul>
RESTRUCTURING MINERALS AND ENERGY CORPORATION (1970-1983)	<ul style="list-style-type: none"> <li>- further integration with finance capital,</li> <li>- further engagement with transnational capital,</li> <li>- further internationalisation (Utah bid),</li> <li>- movement of capital between sectors and spatially,</li> <li>- centralisation of capital in resources;</li> <li>- conflict within capital over steel policy.</li> </ul>	<ul style="list-style-type: none"> <li>- wage rises throughout Australian manufacturing,</li> <li>- bargaining over wage flow-on from mineral boom,</li> <li>- crisis in steel division (post 1980), job-loss,</li> <li>- intensification, rationalisation and technological change in steel division;</li> <li>- community impacts of steel rationalisation.</li> </ul>	<ul style="list-style-type: none"> <li>- resource developments in WA, Qld, Vic, NSW,</li> <li>- bargaining in crisis atmosphere over depressed industrial regions (NSW, SA),</li> <li>- world parity oil pricing (Federal),</li> <li>- bargaining over import protection and levels of subsidy, against the background of uneven regional impact of the steel reorganisation (Federal).</li> </ul>	<ul style="list-style-type: none"> <li>- switch in sources of profit to Vic, Qld, WA,</li> <li>- spatial rationalisation in steel division;</li> <li>- severe impacts of reorganisation on industrial regions;</li> <li>- increase in offshore investment.</li> </ul>

Source: Fagan, 1984, p. 120-21.

the post war era through strategies of vertical integration, and gaining the support the Australian Federal government in the form of tariff protection and favourable access to required resources. Since 1970, BHP has shifted focus by rationalising its steel operations, increasing its centralisation of capital within its resource divisions and becoming more involved in transnational development. Fagan's historical approach to the development of BHP emphasises the value of intensive research methods in analysing the processes underlying structural change at the enterprise level.

Studies such as Dargavel's and Fagan's represent an important development in the evolution of neo-Marxist theory within industrial geography. Both studies adopt a process based approach to investigation, as they are meticulous in discussing the spatial aspects of restructuring in terms of the unique historic and locationally specific relationships between corporate strategy and state policy. Having outlined the utility of neo-Marxist explanations of crises and restructuring within capitalism, the final section of this chapter summarises the segmented economy framework within which a process-based approach to business organisation is structured in Tasmania.

## **1.7 THE SEGMENTED ECONOMY APPROACH TO BUSINESS ORGANISATION**

The segmented economy framework developed by Taylor and Thrift (1981a, 1982a, 1982b, 1983a, 1983b, 1983c, 1983d, 1984) currently offers a most useful conceptual framework from which to examine the dynamic capital, labour and state relations of concern to an increasing number of neo-Marxist based studies of economic restructuring at the regional level. For the Tasmanian study, the segmented economy framework is particularly useful in that it focuses upon the power relations within and between various fractions of capital, recognising that business enterprises vary in terms of their goals, strategies, and ability to dictate the terms of their own development.

### **1.7.1 Extensions of Organisation and Behavioural Theory**

In developing a segmented economy framework Taylor and Thrift have expanded

upon the conceptualisation of business organisations offered in the organisation science and behavioural geography literature. While organisation theory deals extensively with the internal environment of business organisations, Taylor and Thrift suggest that several difficulties have arisen in transferring the model from its origins within organisation science to spatial studies of industrial location and organisation (Marshall, 1979, McDermott, 1974, 1977; McDermott and Taylor, 1976, 1982). First, the organisation theory literature has not developed a consistent theorisation of the external environment although individual studies empirically evaluate the role of external technological, political, sociological and economic forces which affect the internal relations of the firm. Second, being essentially an aspatial model, the relevance and conceptualisation of space in the external environment is not considered. Third, most studies within organisation theory focus upon large business organisations at the expense of a more broadly-based account of the internal conditions within firms of various size and organisational complexity. The segmented economy approach overcomes these deficiencies by integrating an organisational level of analysis within a framework which also conceptualises the relations between firms at the interlocational level and broader social and economic forces which influence organisations at the political economy level.

Additionally, the segmented economy framework improves upon behavioural approaches to business organisation within industrial geography. According to Massey (1984), Taylor (1984b), and Hood (1987), the primary weakness of behavioural research has been its failure to develop a comprehensive theoretical framework within which to examine the business organisation. Without this framework, behavioural studies have generated a fragmented literature on industrial location, the implications of external ownership, information flows, firm size and product-cycles. In particular, studies of large and small business organisations have tended to neglect the importance of power relations between firms.

#### Research on Large and Small Business Organisations

Since the late 1970s numerous studies have evaluated the structure and performance

of small firms (Storey, 1981, 1982, 1983; Mason, 1983, 1984; Frank, et al, 1984) and large business organisations (Parsons, 1972; Watts, 1972, 1980; Taylor and Thrift, 1980; Hayter and Watts, 1983).

Research on large business organisations has documented both the increasing power among large corporations (Locksley and Ward, 1979; Parsons, 1972; Taylor and Thrift, 1980), and changes taking place within individual firms or industries dominated by large corporate interests (Clarke, 1982a; Fagan, 1984; Lewis, 1987; Sinclair and Walker, 1982; Watts, 1980). The increasing power among large (predominantly transnational) corporations has already been discussed (section 1.5). Most of these studies are based upon aggregate national data, and evaluate the structure of a country's largest 100, 500 or 1,000 companies. Concentration of power is then analysed, based upon factors such as employment, contribution to wage income, turnover, value-added and capital expenditure relative to smaller business organisations. Several studies of individual firms and industries have been published since 1980. Such studies are invaluable, given that they have dealt primarily with the corporate and spatial effects of economic restructuring. In particular, studies of corporate restructuring have demonstrated the importance of an enterprise-based approach, as the nature of restructuring and its impact upon corporate development varies between business organisations.

Disillusionment with regional policies favouring large business organisations, and early evidence stressing the importance of small firms in regional growth (Birch, 1979), have generated a substantial literature on small firms since 1980. The literature has taken four general directions: including studies of new firm formation (Cross, 1981; Lloyd and Mason, 1984; Storey, 1981); employment change within small firms (Birch, 1979; Lewis and Williams, 1984; Mason, 1984); policy issues related to small firm development (Froud, 1985; Frank et al, 1984); and the role of small firms within national economies (Johns, et al, 1983; Storey, 1983). However, the underlying rationale of most research has been to study the performance and needs of small firms within a policy-oriented framework.

Research on large and small firms since 1980 has most certainly produced valuable information on the growth and restructuring of business organisations. Notwithstanding, several conceptual and empirical weaknesses within the literature have limited the utility of research conclusions, and demonstrate the need for more comprehensive studies of large and small business organisations. In particular, the lack of conceptualisation presented in the literature has led to Taylor's (1984b,1984c) criticism that because large and small firms have been treated independently, the crucial relations between them have been ignored. Without adopting a comprehensive approach to business organisation, research has paid little attention to the differences in power between firms and their influence upon inter-organisational linkages.

'...the interrelationships between business organisations have often been treated too simplistically in industrial geography and certainly, almost exclusively in terms of the exchange of goods and information as so-called material and information linkages. By focussing on the exchange relationships between pairs of plants and even then focussing only on the geographical dimensions of those relationships, industrial geographers have at best understated and at worst ignored the unequal power relationships that exist between pairs and sets of organisations; unequal relationships that manifest themselves in such commercial arrangements as licensing, franchising, subcontracting, the manipulation of trade credit and access to funds in general' (Taylor and Thrift, 1982a, p. 1601).

In fact, they suggest that industrial geography has become preoccupied with the interlocational level of research, neglecting not only unequal power relationships between firms but also the broader influences of the political economy upon business organisations. So while studies of large firm concentration have examined the spatial patterns of development (Taylor and Thrift, 1980) and the loss of regional autonomy (Watts, 1972), very little is suggested about the effects of increasing concentration of monopoly and global capital upon smaller firms. Additionally, while studies of individual large firms and industries have dealt adequately with the internal reorganisation of production activities, few studies have analysed enterprise or industry restructuring within a broader context incorporating the economic and social implications for local communities, regions and the small firm sector (Adrian and Evans, 1984).

Small firm research has also underplayed the importance of small and large firm relationships as the emphasis upon policy has encouraged a narrow research focus upon



regional studies of formation rates and employment generation. Other potentially important research themes such as linkages between small and large firms, the role of the informal economy, and the importance of franchising, licensing and subcontract arrangements to small firms have received relatively little attention. Only in the last few years have authors other than Taylor and Thrift come forward to support the importance of small and large firm relationships within a comprehensive research methodology (Duché and Savey, 1987; Mason and Harrison, 1985; McLoughlin, 1985). Research into these relationships is crucial if studies of business organisation are to go beyond the simple description of patterns, and address the relevant processes producing enterprise growth and decline. As Massey (1984) suggests, small and large firms only present themselves as useful categories of analysis upon understanding the social nature of capital, and its effect upon enterprise power and strategy. Without this understanding it is difficult to define, empirically, the actual processes taking place.

In response to the deficiencies within behavioural research, Taylor and Thrift's segmented economy framework presents a perspective based upon segmentation, power relations and organisational transformation within the space economy (Taylor and Thrift, 1982a). Extending the sectoral studies of business and labour market dualism within the economic and sociological literature (Averitt, 1968; Bluestone, *et al*, 1973; Tolbert, *et al*, 1980), emphasis is placed upon the activities of business organisations (from small family enterprises to global corporations) and the establishments comprising them.

At an interlocational level, segmentation is defined in terms of the degree of power which organisations possess in relation to one another. Specifically, the power of organisations varies in relation to managerial ability, development strategy, requirements for finance capital, and the nature of operational linkages to other organisations within the segmented economy. Intra-organisational power relations are defined in terms of each establishment's relation to the organisation as a whole. The degree of power which individual establishments possess is dependent upon their role in generating profits for the organisation, their ability to compete against other establishments within the company for operating resources, and the degree of control which they are able to maintain over their

own operation.

Both segments and the organisations within them are in constant change. As organisations grow or decline they (or the establishments within them) may move from one segment to another. As new forms of accumulation and power networks emerge, new segments may be born while existing segments change character or even collapse (Taylor and Thrift, 1984). The importance of power relations and forms of accumulation cannot be overemphasised in defining the segmented economy, and for this reason the model represents an important development within industrial research. The segmented economy framework provides a theoretical structure through which a neo-Marxist approach to business organisation becomes possible. As noted earlier in the chapter, one of the major criticisms of Marxist-based approaches in industrial research is that they have emphasised controlling structures rather than individual actors in explanations of economic and social change. The segmented economy approach allows patterns of accumulation and power to be observed not as abstract or aggregate relations, but through the activities of individual organisations through which changes actually take place.

The following paragraphs outline the current pattern of segmentation as defined by Taylor and Thrift, and the way the segmented economy approach is used within the thesis.

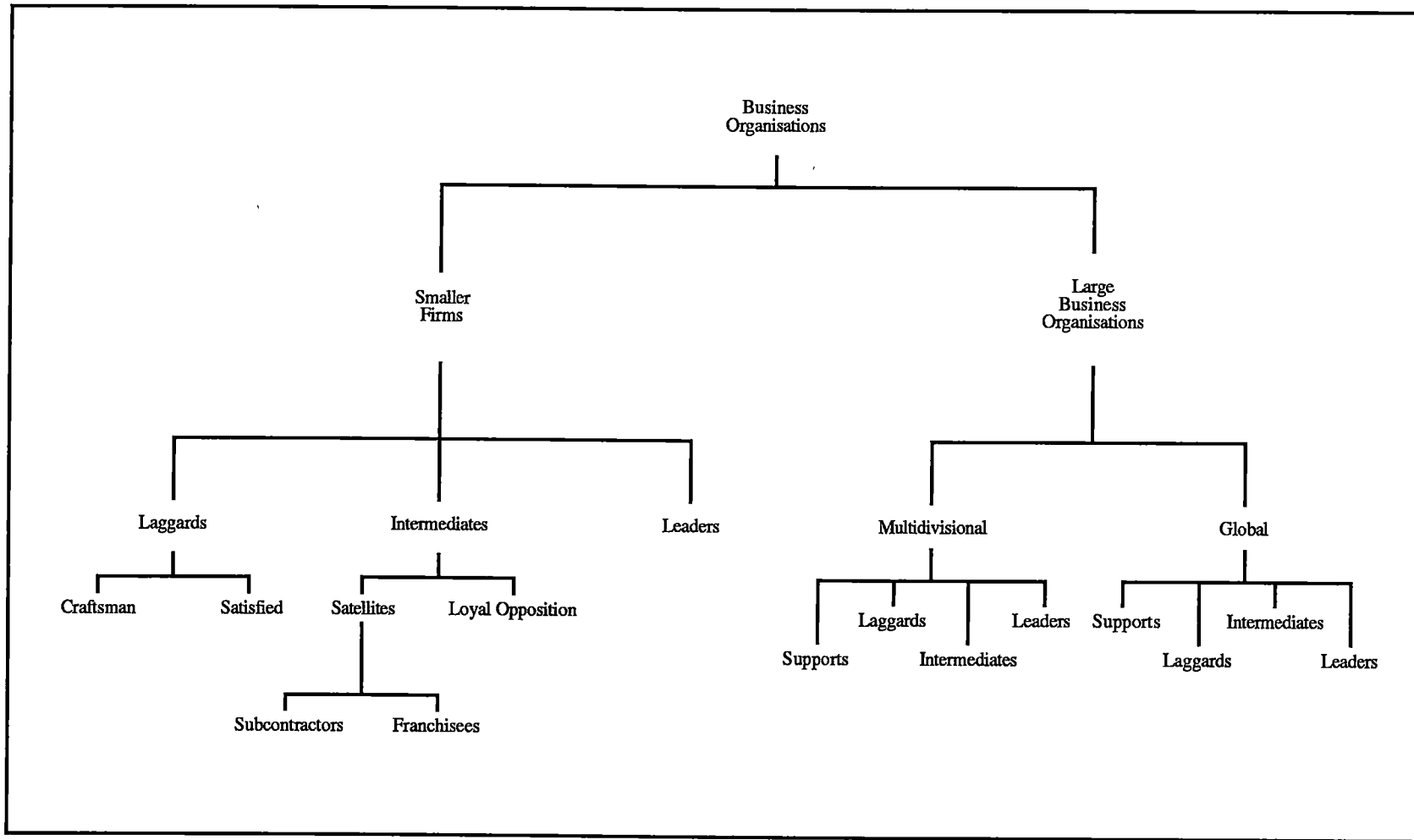
### **1.7.2 The Current Pattern of Segmentation**

In defining the current pattern of segmentation within developed countries, Taylor and Thrift (1983c, 1984) assert that the primary division based upon power and market control lies between *smaller firms* and *large business organisations* (Figure 1.4). In general, small firms operate at a single location while large business organisations tend to contain several operating divisions located at a number of sites. These two primary segments are each comprised of several other segments in which firms share similar strategies, organisational structures and power within the marketplace.

#### Smaller Firms

The small firm sector can be further broken down into leader, intermediate and

Figure 1.4: The Current Pattern of Segmentation According to Taylor and Thrift



Source: Taylor and Thrift, 1984

laggard segments. The *leader* segment, probably containing the fewest number of small firms, is characterised by young dynamic organisations reliant upon a substantial level of entrepreneurial ability in developing new products and processes, and in achieving market leadership. The managers of leader firms are most often risk-takers, and for this reason leader small firms face a greater possibility of success or failure than firms adopting more conservative growth strategies. Taylor and Thrift also suggest that leader firms are the small firms most likely to evolve into large business organisations. However, there are several factors working against this including difficulties in obtaining finance capital, the susceptibility of innovative small firms to takeover and merger activities, and the inability of high growth small firms to survive recessionary periods in market activity.

Small leader firms often require substantial levels of investment to finance the continued rapid development of their products or services. As the firm grows, so does its requirement for investment capital. However, these firms often lack the collateral necessary to secure major loans for high risk development. Even where loans are granted, the commitment to immediate repayments at commercial rates of interest presents a further restraint to growth. The uncertainties of using cash flow for long-term financing increase the leader firm's dependence upon institutional sources of finance. Operating under financial constraint, some firms may accept funding from large business organisations which then assume partial ownership of the small firm. In some cases small firms may be taken over by larger firms which want to obtain a particular expertise or control over a product or service which represents a potential threat to their own development. Another constraint to the continued growth of some small leader firms is their inability to survive periods of recession. Many firms are dependent upon a single product or service to maintain the cash flow needed to meet short-term financial commitments. A fall in demand could, in a relatively short time, force the owners to sell the firm or close it down entirely.

The second small firm segment within Taylor and Thrift's model includes *intermediate* firms which tend to be older and more stable than leader firms. Many intermediate firms operate within a specific market niche, the existence of which often depends on the goodwill or indifference of large business organisations (Taylor and

Thrift, 1981a).

Following Averitt (1968), Taylor and Thrift identify two types of intermediate small firms. First, there are *loyal opposition* firms which focus upon specific market segments not served by large business organisations. Loyal opposition firms tend to offer a single or limited range of products and services, and rarely present a direct challenge to the market leadership of the more powerful large business organisations. Rather, competition between loyal opposition and larger firms is typically limited to only a small portion of the larger firm's primary market. Second, *satellite* firms are closely tied to large business organisations through either subcontract, franchise, license or market price arrangements. Growth among satellite firms is, in part, dependent upon the changing production and marketing strategies of large business organisations.

The third small firm segment identified by Taylor and Thrift includes *laggard* firms which often have minimum potential for continued development. Once again, the segment can be further divided into two groups. First, *satisfied* firms are often run by owners who perceive growth as a threat to their control over the business (Churchill and Lewis, 1983; Moore, 1959). Having adopted a strategy of survival, with the business purposely being kept small, the survival of these firms is often measured in terms of the owner's lifetime. Second, *craftsman* firms are those which have been established by persons with a particular skill. Many craftsman firms often exist on a part-time basis as the owners are not dependent upon the operation as their only source of income. The capital needs of the craftsman firm are often minimal and can often be satisfied by the personal savings of the owner and his immediate family.

### Large Business Organisations

According to Taylor and Thrift, large business organisations can be divided into two primary segments, comprising multi-divisional and global organisations (Figure 1.4). *Multi-divisional* organisations comprise the dominant large business organisation segment, and include regional, national and transnational organisations. Taylor and Thrift subdivide multi-divisional organisations into *leader*, *intermediate*, *laggard* and *support*

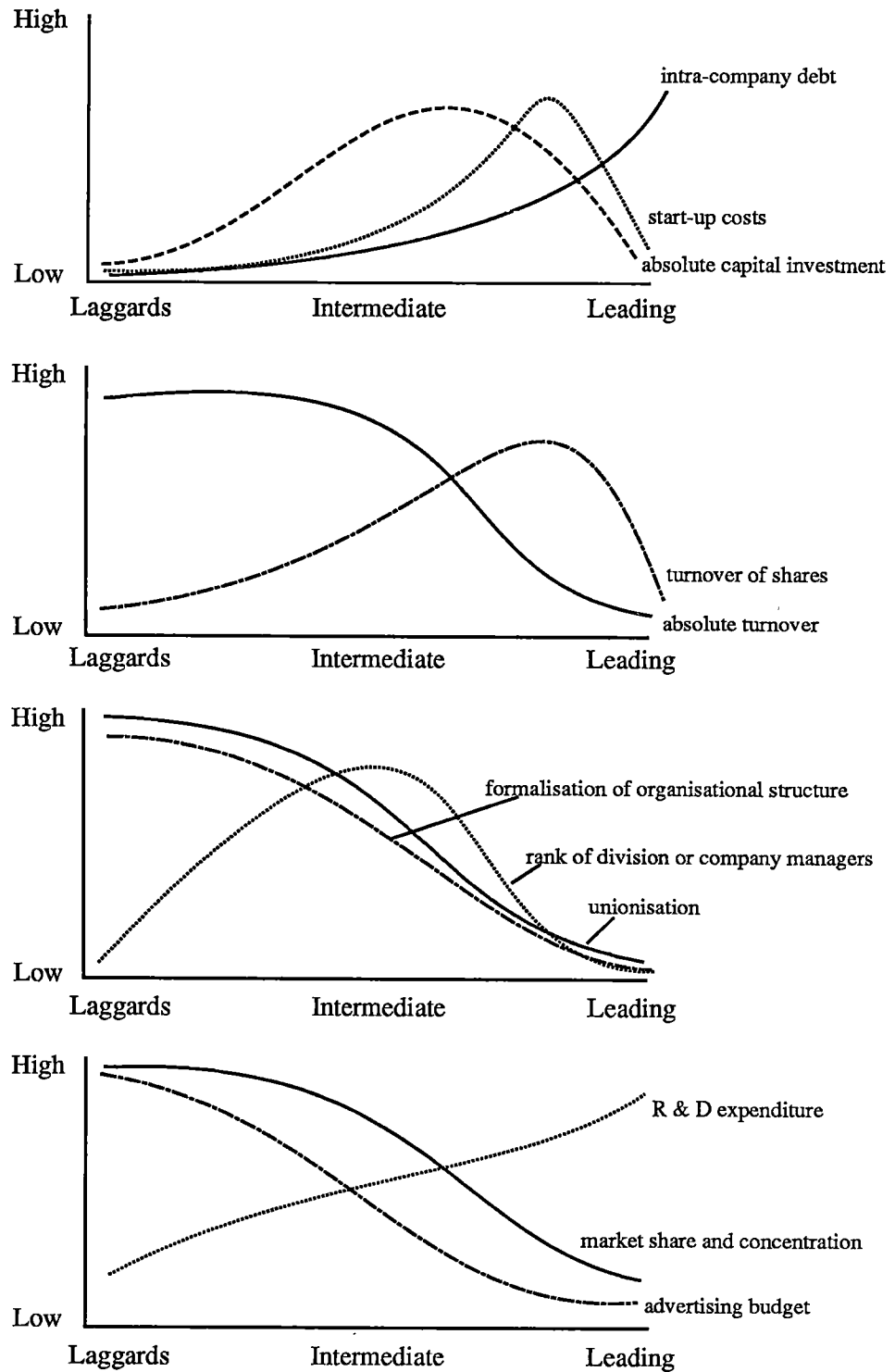
segments. Depending on the specific firm, these segments can range from small branch plants to large semi-autonomous subsidiary companies of the parent organisation. Several segments can occupy the same establishment or be located thousands of kilometres apart. Moreover, all four segments may not be represented in some smaller multi-divisional organisations. The key factor differentiating individual segments within multi-divisional organisations is the role which each segment plays in satisfying the overall goals of the organisation. Once these roles are established, the segments can be further differentiated on the basis of market orientation, labour requirements, capital intensity and the power which each segment possesses within the multi-divisional organisation (Figure 1.5).

Leader segments are responsible for the long-term growth of the organisation and are engaged in high risk activities aimed at developing new products or services. However the potential for future profits justifies the large share of internal funds frequently used to finance them. Leader segments are often associated with regional or national head offices, where senior management can maintain contact with their activities on a daily basis (Crum and Gudgin, 1976, Stephens and Holly, 1981; Thwaites, 1978a). Intermediate segments produce established products or market established skills of the organisation. They are responsible for generating the majority of profits used to finance the organisation's current activities and short-term developments. Laggard segments produce goods or market services which are gradually becoming obsolete. The markets they serve generate less demand or have become highly competitive in recent years, enabling the segment to realise only low (albeit steady) levels of profit. Laggard segments also employ less skilled labour than leader or intermediate segments, and most managerial personnel are engaged in process control rather than in development or marketing activities.

Support segments provide general services to each division within the organisation, including those involving personnel, administrative, financial and technology support functions. Taylor and Thrift also suggest that for transnational organisations, support segments play a key role in transfer-pricing activities.

Although Taylor and Thrift (1984) conclude that leader, intermediate and laggard segments within multi-divisional organisations are 'dynamically linked in a three-part

**Figure 1.5: Hypothesised Relationship Between Laggard, Intermediate and Leading Business Organisation Segments**



Source: Taylor and Thrift, 1981a, p. 44

product or market-cycle' (p. 75), Taylor's later criticisms of the product-cycle model (Taylor, 1985, 1987), imply that the linkages between these segments must be defined in terms of the more detailed processes occurring between them. In particular, the tendency to explain concrete relations directly from abstractions such as those defined within the product-cycle model, ignores the external contingencies influencing the environment within which each segment is operating. The notion of intra-organisational power relationships, rather than simple product differentiation, must be of central concern in evaluating the pattern and significance of segmentation within multi-divisional organisations.

The *global* segment has only become important within the last twenty years and is linked to the transition from monopoly to global capital within developed countries (Gibson and Horvath, 1983a). The global segment includes only the largest of firms having integrated production systems spanning several countries. Marketing and development strategies are made on a global, rather than national basis. Taylor and Thrift (1984) note that while the global segment also consists of leader, intermediate, laggard and support segments, these organisations are 'reduced to expedient investment opportunities linked by support operations and carefully orchestrated transfer-pricing mechanisms' (p. 76).

### **1.7.3 Power Structures Within the Segmented Economy**

As the preceding discussion suggests, the pattern of segmentation at any particular time is largely a function of the power relationships which exist at both the interlocational (eg. between small and large firms) and intra-organisational (eg. between establishments within multi-locational organisations) levels of business activity.

Power relations at the interlocational level are defined in terms of the organisation's access to necessary operating resources, and the degree to which it is able to control (either intentionally or unintentionally) the resources available to other firms. Expanding upon Taylor and Thrift (1982a), the following factors are suggested as influencing the level of power which business organisations possess.

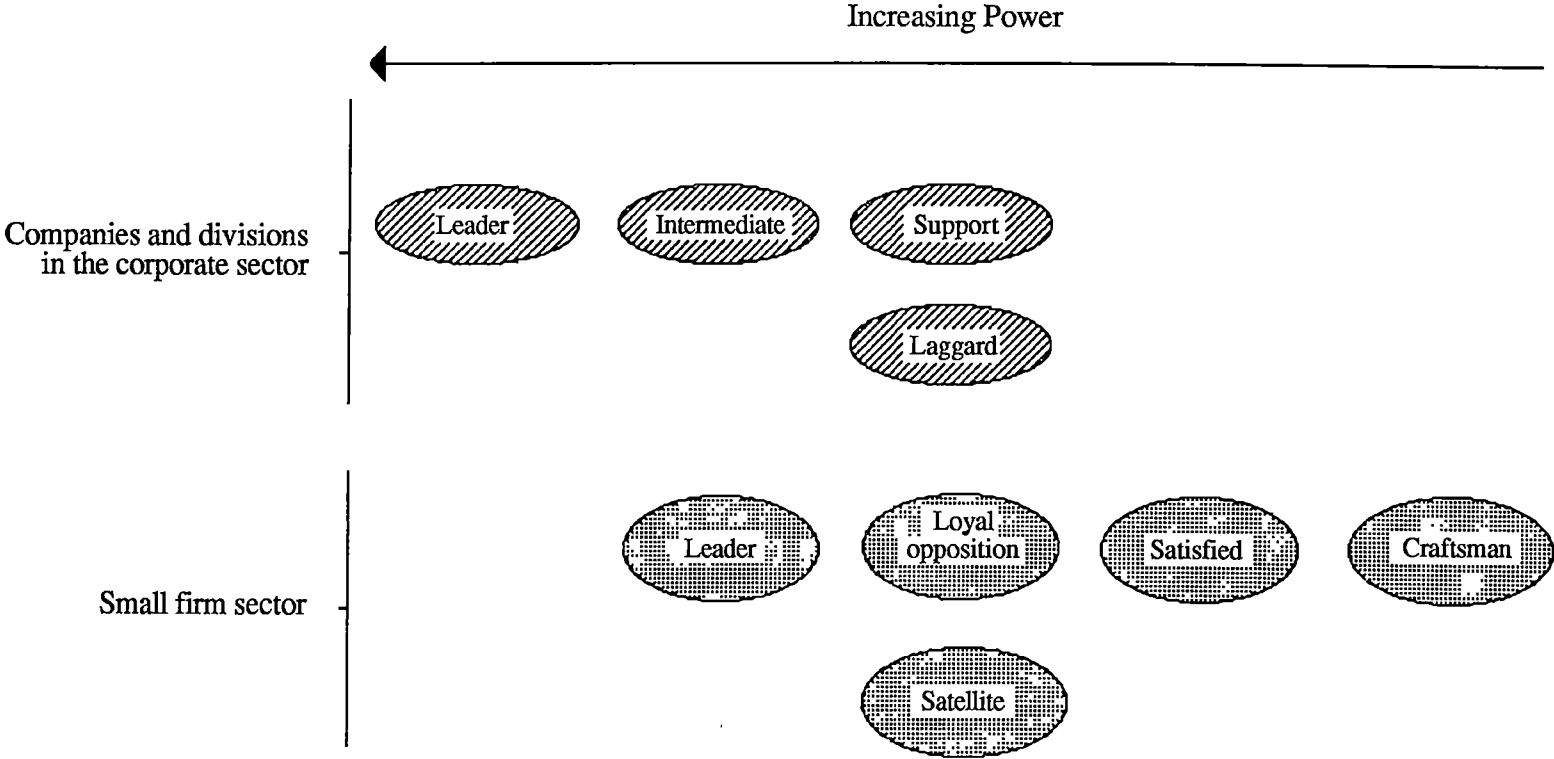


1. The current market share.
2. Bargaining power in bidding for contracts.
3. Manipulation of trade credit.
4. Access to finance.
5. Access to R&D, and other forms of innovative activities.
6. Managerial expertise and the degree of management specialisation.
7. Differential levels of taxation which favour particular firms over others.
8. Dependence upon subcontract, license and market price arrangements.
9. Preferential access to natural resources or other raw materials.
10. Preferential access to state funding, loan guarantees, etc.
11. Partial ownership of one firm by senior management of another.

In addition to these factors, the power relations between individual establishments of multi-locational (or divisional) organisations are dependent upon the level of operational autonomy granted to each establishment (particularly in key areas of product design, pricing, marketing and investment planning), and the success of each establishment in bidding against other establishments for a larger share of corporate development expenditure. Power relations between establishments are influenced as much by the historical succession of corporate strategies as by the current strategies aimed at future development. Together, these strategies determine not only the power relations between establishments, but also the potential contribution of each establishment to the development of the region within which it is based.

The hypothesised power structure of the segmented economy is shown in Figure 1.6. Taylor and Kissling (1983) argue that leader segments within large business organisations possess the greatest degree of power while small craftsman firms hold the least power. Between these extremes, it is suggested that leader small firms may possess as much power as intermediate segments of large business organisations. Depending upon their relation to larger firms, small loyal opposition and satellite firms typically hold as much power as support and laggard segments within large business organisations.

Figure 1.6: Power Networks in the Segmented Economy



Source: Taylor and Kissling, 1983

From the previous discussion it is concluded that the segmented economy approach currently represents the most comprehensive framework through which to examine the activities of business organisations. The model resolves many of the limitations within behavioural industrial research and offers a theoretical structure within which to undertake a neo-Marxist investigation of power and inequality within the capitalist system.

#### **1.7.4 Empirical Extensions of the Segmented Economy Framework**

Following Taylor and Thrift's (1981a) initial paper on business organisation segmentation, several empirical studies based upon their framework have been published. Research has focused upon segmentation in relation to the West Midlands ironfoundry industry (Taylor and Thrift, 1982b), the UK electronics industry (Taylor and Thrift, 1983d), Australian manufacturing (Taylor and Thrift, 1984), airline power networks of the South Pacific (Taylor and Kissling, 1983), the Fijian economy (Taylor, 1983, 1984d, 1986), and research and innovation within business enterprises (Morphet, 1987).

Although each of these studies support business organisations as dynamic agents of economic change, they have taken a number of different approaches to the identification of segmentation per se. Some of the early studies (Taylor and Thrift, 1982b, 1983d, 1984) were, out of necessity, preliminary attempts to extend the concept of segmentation to empirical research. For example, Taylor and Thrift's (1982b) study of the West Midlands ironfoundry industry offers a reinterpretation of previous linkage studies by examining the linkages between groups of organisations characterising various segments within the ironfoundry industry. Segmentation is defined from existing secondary data providing a limited range of information on enterprise size, ownership, products manufactured, and the scale of production and technology used.

In their study of Australian manufacturing, Taylor and Thrift attempt to demonstrate the spatial expression of segmentation within the manufacturing sector (Taylor and Thrift, 1984). Analysis is also based upon existing secondary data as forty-one industry sectors within the Australian Standard Industrial Classification are placed into segments following a cluster analysis involving thirty attributes for each sector. As defined by the resulting

clusters, the three dominant segments are mapped over more than 1,500 Local Government Areas across Australia. Establishments of global and multidivisional organisations are demonstrated to be highly localised in each state, focusing upon the major urban centres and more remote resource-based projects. Corporate intermediate and laggard, as well as most small firm segments, are much less oriented toward these areas. Studies of both the West Midlands ironfoundry industry and Australian Manufacturing demonstrate the utility of the segmented economy approach based upon secondary data. However, both studies are limited in that segments are defined on the basis of quantitative analysis rather than through the identification of more detailed processes taking place between business organisations. Without looking at processes at the enterprise level, these studies are unable to identify the variations in strategy, intra-organisational power relations, and capital-state relations which influence the nature of segmentation.

In contrast to the research utilising secondary data, other studies of segmentation have focused more intensively upon the strategies and activities of individual business organisations. One of the most comprehensive studies to date has been Taylor and Kissling's work on resource dependence and power networks among airlines of the South Pacific (Taylor and Kissling, 1983). In particular, the authors investigate unequal power relationships which exist between large international carriers and the small regional airlines which have grown in importance since the 1960s. Through the identification of processes between each airline, power networks are defined in terms of equity holdings, interlocking directorships, aircraft leasing arrangements, technical and maintenance linkages, and government action to promote cooperation among carriers operating in the region. Taylor and Kissling conclude that the evolving network of power relationships has greatly influenced the ability of the smaller carriers to strengthen their position in the region and expand into other external markets.

Taylor's research on the Fijian economy also adopts an intensive approach in identifying the patterns and implications of segmentation (Taylor, 1983, 1984d, 1986). Following the completion of a report to the Fiji Employment and Development Mission (Taylor, 1983), Taylor has published separate papers on the role of foreign owned

transnationals, and the transfer of value mechanisms operating in Fiji. Moreover, Taylor's research on Fiji represents the only research on segmentation to date which has investigated the power relations both within and between business organisations. In his paper on the development of foreign transnationals, Taylor (1986) highlights the predominance of foreign owned corporate enterprises within the Fijian economy, over 90 per cent of which are classified as belonging to laggard or intermediate segments. Notwithstanding, many of these transnationals are able to assert their authority over small indigenous firms, primarily through a number of formal and informal subcontract relationships which have emerged in recent years. Taylor also examines the importance of such relationships in terms of intra and inter organisational transfer of value mechanisms operating between Fijian subsidiaries and their foreign-based parent companies (Taylor, 1984d). Through these mechanisms, Taylor estimates that \$F30 million a year has been transferred out of Fiji by foreign owned transnationals. The transfers involved include the trading of goods, dividends paid, interest payments on loans, and various fees paid to the parent company for patents and services.

Both Taylor's work on Fiji and Taylor and Kissling's study of South Pacific airlines have provided useful insight into the processes behind the creation of power networks and the identification of enterprise segmentation. The Tasmanian study extends this body of research by structuring a process-based approach to business organisation, within the context of a segmented economy framework focusing upon the dynamics of a regional manufacturing economy.

#### **1.8 THESIS STRUCTURE WITHIN THE CONTEXT OF A SEGMENTED ECONOMY FRAMEWORK**

Within the thesis, empirical research centres upon the processes occurring within and between manufacturing enterprises, as well as the processes between enterprises and other agents within the broader political economy. These relationships, within the historical context of Tasmania's industrial development, will determine the particular expression of capitalist production and enterprise segmentation operating within the local region. The regional pattern of segmentation may be quite similar to, or different from, that suggested

by Taylor and Thrift (Figure 1.4). For instance, some segments of large business organisations may be entirely absent from the regional economy while the small firm sector may comprise a more complex pattern of segmentation. In either case, segmentation is contingent upon the unique network of power relations within and between business organisations. As Berger and Piore (1980) conclude, it is the notion of segmentation, rather than the number of segments, which is critical to the theoretical framework (p. 142). The objective of the thesis is not to 'test' the pattern of segmentation in Tasmania against the pattern described by Taylor and Thrift. What is crucial, is that empirical research within the local region focuses upon relationships which present themselves as useful categories for analysis.

In applying a segmented economy approach to the Tasmanian manufacturing economy, it is important to note that investigation focuses upon a region where resource-based activities represent a major share of manufacturing employment and output, large business organisations are primarily represented through the establishment of branch plants, and the focus of research must be placed upon the local operational unit, and the decisions affecting it, rather than on the larger business organisation. Within the context of the Tasmanian economy, some of the key relationships to be investigated are those between small and large business organisations, power relations within business organisations and the relations influencing Tasmanian manufacturing organisations at the broader political economy level.

Relations between small and large business organisations incorporate the nature of subcontract, license, market and financial arrangements. Of particular concern is the degree to which small firms are dependent upon larger firms for necessary operating resources and as destinations of output. The level of competition between small and large firms, and the strategies under which large firms have integrated smaller firms into their production or marketing operations are also important. Power relations within business organisations include relations between establishments of multi-plant enterprises within Tasmania, as well as the relations between Tasmanian branch plants and their externally located parent organisation. Of central importance are power networks resulting from

patterns of established operational linkages, the level of autonomy granted to Tasmanian branch plants and shifts in functional responsibility between branch plants and the parent organisation. In studying intra-organisational power relations between Tasmanian enterprises and other establishments of the parent organisation outside the state, the thesis empirically examines the importance of local enterprises in the overall process of accumulation by the parent company.

Power relations at the broader political economy level can be subdivided into two types of interactions. First are the interactions between business organisations and government authorities at the state, federal and international levels. At the state and federal level, policies concerning industry protection, development incentives, business taxation and resource allocation influence, and are influenced by, the power which some business organisations possess over others. Although not as direct, the policies of foreign governments also influence the power of some locally-based organisations by determining their access to resources and markets overseas, and setting the conditions under which foreign direct investment can take place. Second, understanding the relations between local producers and the global corporate environment is crucial in identifying the competitive position of organisations which sell their products in export markets. The market position of an organisation within a global context is likely to influence the power it holds within the regional economy.

The following paragraphs summarise the theoretical and empirical objectives of the remaining chapters of the thesis.

### **1.8.1 Chapter Organisation**

Each of the remaining chapters contribute to the understanding of segmentation and power relations within the Tasmanian manufacturing economy. Chapters 2 and 3 establish the empirical structure and background to the study, while Chapters 4 through 6 focus upon the processes underlying power networks, structural change and segmentation within business organisations.

Chapter 2 details the empirical structure of the thesis. In particular, the basis for a questionnaire approach to investigation is presented and the survey structure is outlined. Several operational definitions are addressed and the relevant literature on external ownership is summarised as this distinction is crucial in understanding processes taking place within the regional manufacturing economy.

Chapter 3 summarises the events leading up to the present phase of Australian industrial restructuring, and describes the current economic context within which Australian, and particularly Tasmanian, manufacturers are operating. The general structure of Tasmania's manufacturing sector is also established based upon industry, ownership, firm size and market orientation.

Chapter 4 establishes the functional and power relationships taking place within multi-plant firms, and between firms in Tasmania. Within multi-plant firms, research centres upon the functional relations between establishments, autonomy of each establishment and shifts in responsibility between establishments since 1980. Relations between firms highlight the nature of subcontract, franchise, license and market arrangements, particularly as they influence the power networks between small and large firms.

Chapter 5 establishes the nature of enterprise differentiation within Tasmania's indigenous and non-locally owned manufacturing sectors. Segmentation within the non-locally owned sector is identified in terms of the operational role which local branch plants maintain within their parent organisation. Power relations between non-locally owned enterprises and their parent companies are also evaluated. The final portion of the chapter differentiates indigenous manufacturing enterprises on the basis of owner-managed versus manager-operated organisations, as these groups present themselves as useful categories within which to evaluate processes taking place.

Chapter 6 examines the constraints to growth within indigenous and external capital, and the strategies adopted by manufacturing enterprises between 1980 and 1985. Given the strategies adopted by Tasmania's manufacturers, structural changes taking place are also described. Emphasis is given to changes in employment, investment and the volume



of manufactured output between 1980 and 1985.

The final chapter summarises the empirical research, highlighting the nature of segmentation and power relations within Tasmania's manufacturing sector. Policy issues are also discussed in light of the thesis' empirical results. Particular attention is given to the potential for development policies aimed at Tasmania's indigenous small firm sector. In addition, the utility of a segmented economy approach to evidence provided at the regional level of investigation is also assessed.

## **CHAPTER 2**

### **EMPIRICAL APPROACH TO INVESTIGATION**

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The objective of this chapter is to establish the empirical approach to investigation. To satisfy this objective, the chapter is divided into three sections. First, the thesis' focus upon manufacturing activities is qualified in light of the growing concern among industrial geographers that research must integrate service (as well as production) activities into studies of industrial change. Second, the previous enterprise-based research on external control is summarised as this literature is relevant in developing the thesis' empirical structure. It is argued that although this research has addressed some important issues related to enterprise structure and development, the lack of conceptualisation of processes and the primacy given to mere employment numbers has limited the utility of the enterprise approach to date. Third, it is argued that a survey-based approach to empirical research is necessary as published data for Tasmania are inadequate for undertaking an intensive study of business organisation. Several operational terms are defined and the structure of the manufacturing survey is detailed in reference to the primary research objectives.

## **2.1 THE IMPORTANCE OF MANUFACTURING COMPARED WITH SERVICE ACTIVITIES**

While subsequent empirical research focuses primarily upon structure and change within Tasmania's manufacturing sector, it is recognised that due account must be given to the role of both manufacturing and service industries within regional economies. Since 1980, several authors have criticised the bias within industrial research toward production-based activities (Barlow, 1972; Daniels, 1983; Linge, 1986; Wood, 1986). These authors argue that industrial research must evaluate the role of service industries, not merely as supportive activities, but as industries capable of creating and maintaining regional growth. In particular, attention has focused upon the role of intermediate (or producer) services in generating economic activity and employment growth since 1970.

Over the last two decades, employment growth in service industries has far outpaced that in manufacturing in most advanced economies (Bacon and Eltis, 1976; Thirlwall, 1982; Kellerman, 1985). Increasing national and global competition, combined with the rapid adoption of new technologies, has led to significant employment loss within manufacturing. At the same time, societies have increasingly emphasised innovation, modernisation and community welfare as important social values which have facilitated the rapid development of sophisticated and specialised service activities. By 1981, service industries employed over 60 per cent of the total workforce within several countries including the US, Canada, the UK and Australia.

In fact, one of the central arguments advocating service industries as the leading sector in economic development is that employment in intermediate services has increased while manufacturing employment has decreased within most advanced economies. This trend refutes the proposition of those who support manufacturing as the leading sector, and believe that growth in service industries is largely dependent upon continued investment in production-based activities (Fothergill and Gudgin, 1982; Gertler, 1986). Moreover, those supporting manufacturing as the leading sector argue that although manufacturing has shed employment, it has primarily been in response to significant gains in productivity which have generated higher levels of earnings at the expense of labour inputs. They suggest that services, on the other hand, have increased productivity at a much slower rate, which has led to the service sector, in aggregate, increasing its share of total employment. However, recent literature on service industries argues against this by proposing that measures of productivity based upon employment change do not apply equally to both manufacturing and services (Daniels, 1983).

Given the arguments presented in support for both manufacturing and services, the conclusion must be that both sectors possess the ability to generate economic activity, and play an important role in the process of regional change. Rather than presenting a case for one or the other sectors 'leading' economic development, research must consider more carefully the linkages between manufacturing and service industries. To date, research has evaluated these linkages primarily in relation to manufacturing industry demand for

intermediate services (Burrows and Town, 1971; Britton, 1974; Marshall, 1980, 1982b; Schamp, 1987). These studies have provided important information on both the decision process involved in purchasing services and the demand for external services based upon the ownership, size, organisational structure and process sophistication of manufacturing firms.

Future research, however, must concentrate on the integration of production and service activities. As competition within manufacturing has increased, the supply side of production, and access to process and other technical innovations, have become more critical. In an attempt to increase their competitiveness, many firms have directed more resources toward activities such as product design, public relations, product advertising, market research and sales promotion. Goddard's (1978) research concludes that nearly 40 per cent of jobs in manufacturing are currently in support activities outside production, and suggests that this figure is even higher among the more successful, technically innovative firms and industries. Clearly, the growth of intermediate service activities must take into account changes taking place within manufacturing firms as well as within independent service organisations. It is not simply growth, but also the restructuring of production activities which have relevant implications for service employment.

While the Tasmanian study centres upon manufacturing firms, examination of structure and change within organisations considers both production and non-production activities. In applying an intensive approach to business organisations the thesis is able to qualify many of the relations between enterprise restructuring and the changing nature of service linkages, both internal and external to the firm. In particular, the thesis evaluates changes in 'non-production' employment within manufacturing firms, shifts in capital expenditure between production and non-production activities, the integration of service industries and manufacturing firms through subcontract arrangements, and the nature of intermediate service linkages between Tasmanian branch plants and the parent firm located outside the state. Once again, research can only begin to understand such complex relations by giving consideration to the corporate-specific context within which restructuring has taken place.

Before detailing the methodological framework of the thesis, the following section briefly summarises the research within industrial geography on external control. Both the organisation of the manufacturing survey and empirical discussion throughout the thesis are, to a large extent, structured around the processes operating within non-locally owned Tasmanian enterprises. Discussion highlights the central arguments presented in the literature to date, as well as its more important weaknesses.

## **2.2 RESEARCH ON EXTERNAL CONTROL AND REGIONAL DEVELOPMENT**

While the relationship between ownership character and regional development has received little attention in Australia, it has been the centre of considerable research in the US and UK since the mid-1970s. In particular, attention has been given to the effects of high levels of external ownership within 'peripheral' and non-metropolitan areas. Much of the research emerged from a growing disenchantment with national development policies which had failed to lessen regional disparities, despite many years of substantial government funding toward the development of industry within economically and socially depressed areas. Throughout the 1960s and 1970s the cornerstone of regional policy in advanced economies such as Canada and Britain was to attract mobile industries away from core regions to these depressed areas. Although in its initial stages this policy seemed to provide satisfactory employment results, by the late 1970s it came under severe criticism as the industries attracted to development areas failed to provide an adequate base for long term economic growth (Moore *et al*, 1982; Hayter, 1982; Mawson and Miller, 1982).

As the failings of regional policy became increasingly obvious, a number of studies began to consider the role of external ownership (or branch plants) in regional development. In particular, the research of Atkins (1973), Fim (1975) and Townroe (1975) was instrumental in providing the conceptual and empirical foundations for other studies to be published over the next decade. Throughout this literature, research has focused upon the potential advantages and disadvantages of branch plant development.

The central arguments favouring external ownership include:

1. Funds for capital investment are more readily available, given that most branches have access to finance through the parent company.
2. Branches have the advantage of utilising the parent company's established supply and marketing networks, thus eliminating the cost of having to establish these themselves. This is particularly an important element for peripherally located branches whose markets lie over a wide national or international area.
3. Branch plants have greater access to technology and innovation through their contact with the parent company.
4. Branches which are linked to the parent company's technological development programs provide valuable spin-offs to the indigenous firm sector in the local region.
5. Cyclical downturns provide less of a threat to branches which are able to draw upon the parent company's resources for temporary support. Indigenous firms lacking these back-up sources may only have the choices of rationalisation or closure.

Conversely, some of the arguments against external ownership are that:

1. The parent company under which a branch plant operates is often insensitive to the local development needs of the community within which its branch is located.
2. Branches are not integrated into the local economy when they obtain the majority of their material and service requirements through the parent company.
3. Branches set up solely as production units do not provide many employment opportunities in technical and management areas.
4. Branches set up as production units with low operational autonomy lack the desire to excel.
5. Branches producing standardised products primarily draw upon female and unskilled labour receiving lower wages, thus reducing a region's total wage income.

Support for and against branch plant development has come from an extensive range of research. In general, however, individual studies tend to centre upon one of four primary aspects of external ownership. These are branch plant material and service linkages (McDermott, 1976; Northern Region Strategy Team, 1977; Marshall, 1979), employment change within branch and indigenous enterprises (Townroe, 1975; O'Farrell, 1985; O'Farrell and Crouchley, 1985), closure rates among branch and indigenous enterprises (Atkins, 1973; Sant, 1974; Barkley, 1978; Erickson, 1980), and the effects of merger and takeover activity within regional economies (Brue, 1972, 1975; Smith, 1979;

Udell, 1969). Within these four central research themes, more detailed studies have also considered branch plant performance based upon varying forms of corporate ownership (Dicken, 1976; Erickson, 1980), the role of branch plants as agents of technical change (Oakey, Thwaites and Nash, 1980; Oakey, 1983b), and the nature of external ownership and control within specific industries (Watts, 1975, 1981).

This diverse literature has led to varying conclusions about the relationship between ownership and regional development. At a general level, research undertaken in the UK has been more favourable toward external ownership than have studies undertaken in the US. For example, Atkins' (1973) study of UK assisted areas demonstrates that the annual closure rate of 2.1 per cent among branch plants was not significantly higher than the rate of closure among indigenous plants. Smith (1979) concludes that although branch plants generated fewer jobs than indigenous firms in the Northern Region of England, this probably reflects higher productivity among the more capital intensive branch operations. Conversely, Erickson's (1980) research on closure rates in non-metropolitan Wisconsin suggests that branch plants within lagging industry groups (eg. textiles and clothing) are likely to close at twice the rate of branch and indigenous plants producing faster growing, high technology products. Barkley's (1978) study in non-metropolitan Iowa proposes that communities with a high concentration of branch plants experience greater difficulty in maintaining or increasing their industrial base, as branches are much more likely than locally owned firms to eventually transfer their operations out of the local area. Unfortunately, meaningful comparisons between studies is difficult as each has adopted different methodologies and timeframes within which ownership has been examined.

While studies of external control are commendable for their contribution to the development of enterprise-based research within industrial geography, there are several deficiencies to be considered. First, many studies fail to differentiate between ownership and control in their evaluation of branch plant performance. Although the ownership of a plant may lie outside the local region, the degree of control which the external head office maintains over its operation is dependent upon a number of factors including the nature of products produced, the character of the market in which the branch plant sells its products,



and the management policies of the parent organisation. Too often in the literature this important relationship between ownership and control has been ignored, and the location of control is simply defined as being in the region where the headquarters of a branch plant is located. Several studies including Townroe (1975) and Marshall (1979) have examined the level of autonomy granted to branch plants. However, patterns of employment change, linkages and closure rates have largely been analysed in relation to the location of the external head office as opposed to measures of autonomy. Crucial relations between branch plant performance and the nature of intra-organisational networks of power and control have virtually been unexplored.

Second, although most studies make brief reference to branch plant performance on the basis of plant size, research has not given adequate consideration to the dynamics of small and large branch plants within regional economies. The preoccupation with employment change and closure rates has overshadowed other important factors related to branch versus indigenous development. These include the nature of competition between smaller branch plants and indigenous firms, and the extent to which different sized branch plants are engaged in non-production activities. Also important is the degree to which small and medium branch plants must compete with other similar plants within the parent organisation for investment resources and access to market areas. The Tasmanian study addresses many of these issues in order to understand better the relations between branch plant size, position within the parent organisation and competitive performance within both local and external markets.

Third, a lack of a conceptual framework has limited the utility of an enterprise-based approach. Most often, studies of branch plant performance have been grounded in a brief theoretical discussion of multi-plant organisational structure and its implication for branch plant development, rather than more general theories of business organisations within the capitalist system. Two notable exceptions have been Park and Wheeler (1983), who based their work on the product-cycle model, and Hayter's (1982) research on truncation within regional economies. In particular, the notion of truncation presents itself as a useful conceptualisation, although it is difficult to measure empirically. Within most

research, however, emphasis has been placed upon regional policy implications, and spatial patterns of employment growth and plant closures, at the expense of greater conceptualisation and empirical research focusing upon the corporate-specific processes producing regional change. Even though many studies are based upon establishment level data, research discussion and conclusions are based primarily upon aggregate regional patterns of branch and indigenous performance. By concentrating upon power networks, corporate strategy and segmentation within Tasmanian business organisations, the thesis overcomes this weakness by integrating aggregate regional data with qualitative process-based information at the level of the individual business enterprise.

### **2.2.1 Ownership and Control - The Present Context of Research**

The policy focus of most ownership studies during the 1970s and early 1980s has resulted in research which is concerned primarily with the identification of control within regions, and the comparison of branch and indigenous plant performance. Quite clearly, current research must go beyond such simple distinctions in order to qualify the importance of ownership and control within the broader context of economic recession and the restructuring of business organisations over the past ten years. As Dicken argued over a decade ago, the importance of control:

'...cannot be divorced realistically from the strategy being followed by an enterprise and the structure it has evolved to implement that strategy. This is inherently a dynamic phenomenon: the behaviour of any business enterprise is a function of its position along its development path or trajectory which implies both its previous positions and its planned future direction...thus, identification of control *per se* is but the very first step; on its own it tells us little about the existing and potential impact of multiplant business enterprises on local communities or larger regions' (Dicken, 1976, p. 410).

With recent evidence suggesting that the decentralisation of branch plants into less-developed areas has declined sharply since the mid-1970s (Tödtling, 1984, p. 407), the regional implications of restructuring within multiplant business organisations has become increasingly important. What is needed is a greater conceptualisation of external control, particularly in terms of the relations and functions of economic ownership (Massey, 1984; Ricketts, 1987). The degree to which branch plants are divorced from the conditions of

ownership reflects upon their ability to develop strategies undertake investment, and maintain control over the process of accumulation. The nature of economic ownership within branch plants also affects the character of the local labour processes, in that labour may be forced to negotiate with externally-located managers who ultimately maintain full ownership. The regional character of restructuring and changing forms of capital-labour relations can only be understood after first identifying the conditions of economic ownership within branch plants.

Having identified the limitations within the research on external control, the remainder of this chapter addresses the empirical approach to investigation. In presenting a process-based account of power, segmentation and structural change taking place within Tasmania's manufacturing economy, the thesis' empirical objectives are to:

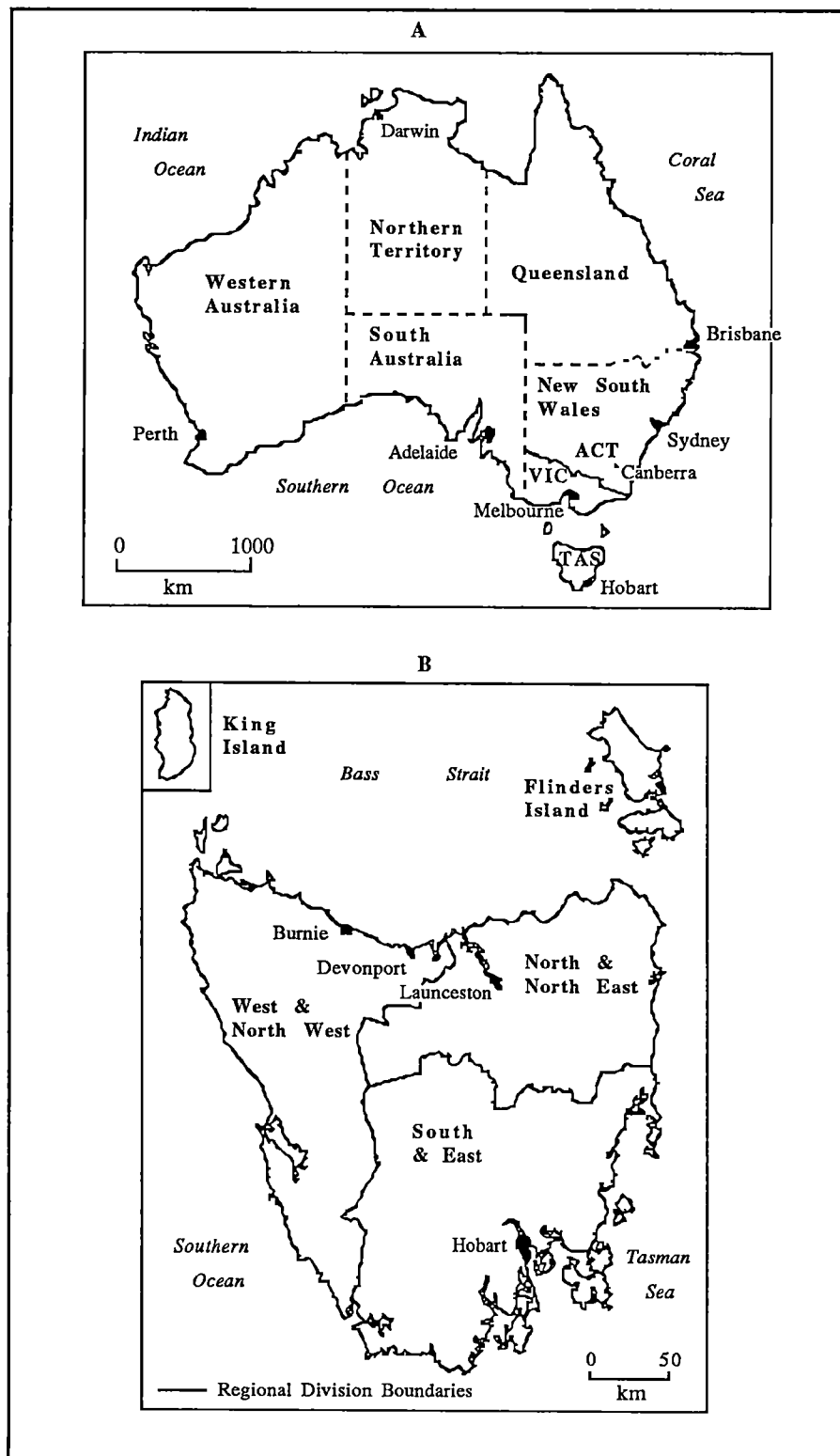
- (1) Detail at an extensive (or aggregate) level, the current structure of manufacturing and assess how it has changed since 1980.
- (2) Examine both the potential for change and actual changes taking place at the enterprise level. This requires an intensive study of strategy and behaviour of individual enterprises.
- (3) Place the structure of the state's manufacturing economy within the broader context of the national and global economic environment.

These objectives demand a comprehensive methodology integrating aggregate data and information provided at the business organisation level. The following sections detail the methodology employed in the study.

### **2.3 STUDY AREA**

Empirical research centres upon the activities of manufacturing enterprises in Tasmania, encompassing the local, national and global relations which influence the state's manufacturing economy. Tasmania, the smallest of the six Australian states (68,300 km<sup>2</sup>), lies 250 km south of Melbourne (Figure 2.1a). Tasmania's population of 442,100 persons in 1984/85 represented 2.8 per cent of the Australian total (Tasmanian Year Book, 1986). The distribution of population within Tasmania is concentrated into three distinct regions (Figure 2.1b). These are the south and east, which focuses upon the

Figure 2.1: Study Area and Regional Divisions



state capital of Hobart; the north and north east, which centres upon Launceston; and the west and north west, which focuses upon the two coastal cities of Burnie and Devonport. Research by Wilde (1975, 1979) and Hanson (1985) suggests that these three statistical divisions represent the most useful regional breakdown below the state level on the basis of journey to work patterns, market areas of local manufacturers, and rural-urban interaction fields. Since manufacturing activity within each region is concentrated in one or two dominant urban areas, the thesis adopts these divisions for regional analysis within the state. Later chapters will show that the majority of operational linkages among manufacturers are within the local region in which they are based.

Outside of the four largest urban areas, which contain 66 per cent of the total state population (Table 2.1), the population is scattered among several small mining towns on the west coast, resort and fishing communities on the east coast, and the two smaller islands located north of the main island. Almost one-third of the state's land area remains uninhabited, primarily due to the ruggedness and inaccessibility of the west and south west, but Tasmania still contains the most decentralised population of any Australian state, with only 42 per cent of the population residing in the capital city of Hobart (Table 2.2). The implications of the state's decentralised population and its position as the only island state of Australia are discussed in Chapter 3.

## **2.4 OPERATIONAL DEFINITIONS**

Before identifying the data sources used in the analysis, and detailing the survey approach to investigation, several terms used throughout the thesis are defined within the context of the Tasmanian study. In particular, attention is given to the term region as it applies to Tasmania, and the delimitation of manufacturing, the manufacturing enterprise, and enterprise ownership.

### **2.4.1 Tasmania as a Regional Identity**

The thesis centres upon Tasmania as a unique region within the Australian and

**Table 2.1: Population of Principal Tasmanian Municipalities, 1985**

LGA <sup>1</sup>	Persons	% of Total Tasmanian Population
Hobart <sup>2</sup>	184 610	41.7
Launceston	62 460	14.1
Devonport	25 300	5.7
Burnie	21 210	4.8
Total	293 580	66.3

<sup>1</sup> Local Government Area

<sup>2</sup> Incorporating Hobart, Glenorchy, Clarence, Brighton, Kingborough, New Norfolk and Sorell LGAs.

Source: A.B.S., Tasmanian Year Book, 1986.

**Table 2.2: Population Concentration in Australian Capital Cities, 1985**

City	Population	
	Persons ( <sup>000</sup> )	% of State Total
Adelaide (SA)	979.6	72.3
Perth (WA)	483.4	71.0
Melbourne (VIC)	2 890.7	70.8
Sydney (NSW)	3 358.6	62.0
Brisbane (QLD)	1 146.6	45.7
Hobart (TAS)	184.6	41.7

Source: A.B.S., Australian Year Book, 1986.

global space economy. Several criticisms have been made against regionally-based studies which fail to qualify the reasons for taking the region as a pre-given entity. For instance, it has been argued by Massey (1978a) that regions must be constituted as an effect of analysis, and that the process of uneven development does not imply a pre-given regionalisation (p. 110). Others including Browett (1984), Markusen (1979), and Sayer (1985a) postulate that the process of development is far too complex to reduce the spatial outcomes into homogeneous regions. This latter argument presents the views of those who base their criticisms upon a more general concern for the conceptualisation of space within studies of economic restructuring. In particular, they argue that regionalisation is likely to cut across important processes of restructuring and under-development, and inappropriately weight the region as a theoretically significant entity.

The primary justification for accepting Tasmania as a distinct regional economy is its position as a separate political identity within the Australian federal system. Historical patterns of control, power networks and industrial restructuring have influenced the current structure of the state's manufacturing sector and the Tasmanian government's ability to generate and maintain long-term economic growth. Focusing upon an independent political region allows the thesis more fully to consider the relationship between enterprise activity and policies initiated at the political economy level. The study of Tasmania as a region is also important as its physical separation from the Australian mainland presents several difficulties for enterprises which are reliant upon mainland-based firms for services and material inputs, and as destinations for manufactured products. Given that manufacturers in other states do not face these difficulties, it is important to understand the ways in which Tasmanian enterprises have responded to their separation from mainland markets, and the implications this has had for the state's economic development.

#### **2.4.2 Manufacturing**

The thesis is largely concerned with enterprises which are engaged in manufacturing activities. In defining manufacturing for the Tasmanian study, the thesis adopts the

Australian Bureau of Statistics' interpretation that manufacturing relates to the '...physical or chemical transformation of materials or components into new products, whether the work is performed by power-driven machines or by hand' (ABS, 1983). Under this definition, packaging, repair work, installation and maintenance are not considered to be manufacturing activities since they do not result in the generation of new products. Additionally, enterprises engaged in the fabrication of manufactured componentry (for example, window furnishings and pre-moulded kitchen units) are considered as manufacturers only if the fabrication is carried out on a regular basis within the firm's own plant. Fabrication undertaken outside the plant during installation of the product is not regarded as manufacturing.

For an enterprise to be included in the study, it was decided that at least 25 per cent of total income received by the Tasmanian operation during 1985 must come from the sale or transfer of products manufactured by the operation in Tasmania. This follows Hanson's study of manufacturing enterprises in Launceston, in which he suggests that Tasmanian manufacturers tend to undertake a greater range of industrial activities (eg. including installation, maintenance and repair) than firms located in larger urban areas (Hanson, 1985, p. 81). By adopting a minimum limit of 25 per cent, the present study is thus able to ensure coverage of all manufacturing related activities. In its present context, income refers to all earnings received by the Tasmanian operation for sale of its manufactured products, the provision of personal or professional services, maintenance, installation, repair work, wholesale and retail activities, and proceeds of equity investments in non-related companies and share markets.

In examining enterprises in which manufacturing may represent only one of several important activities, empirical research investigates a number of strategies which are critical to the understanding of enterprise restructuring in Tasmanian manufacturing. In particular, the decision to invest in manufacturing or non-production activities, and strategies of diversification into activities related to an enterprise's manufacturing base are important aspects of enterprise restructuring, and are often related to the particular position of Tasmanian manufacturers operating within a limited local market. If the empirical



research was to focus only upon those enterprises wholly or predominantly engaged in manufacturing, many of the strategies particular to the Tasmanian manufacturing environment would be overlooked. However, great care is taken in ensuring that enterprises meet the 25 per cent income requirement for the sale or transfer of products manufactured in Tasmania.

#### Classification of Manufacturing Industry

Throughout the thesis, classification of manufacturing activities is based upon the Australian Standard Industrial Classification (ASIC) of 1983. Although the identification of processes requires that considerable attention be given to the individual enterprise and the detailed industrial environment within which it operates, some aggregate analysis by manufacturing industry is undertaken at the two digit, ASIC subdivision level (Table 2.3). Enterprises are placed, by the researcher, within the subdivision in which the majority of income was received in 1985 from the sale of products manufactured in Tasmania. However, this does not apply where autonomous operating divisions within an enterprise manufacture products in different subdivisions, and can be clearly divided in terms of employment, management structure, and products manufactured. For these enterprises, each operating division is placed within the subdivision in which it manufactures, and is analysed independently.

In total, only 21 (4.5 per cent) enterprises included in the study manufacture products in more than one subdivision. Twenty of these enterprises manufacture products within two subdivisions, while one enterprise manufactures (sawn timber, clay bricks and glass) within three subdivisions. Of these 21 enterprises, only one firm (producing timber products and writing papers) can be disaggregated into two ASIC subdivisions since the remainder did not have independent operating divisions.

#### **2.4.3 The Tasmanian Enterprise**

The Tasmanian enterprise is the primary level at which investigation is undertaken in this study. For the current study, the enterprise is defined as an operational unit

**Table 2.3: Manufacturing Industry Subdivisions Used in the Tasmanian Study**

Subdivision	Description
21	Food and beverage products
23	Textiles
24	Clothing and Footwear
25	Wood, wood products and furniture
26	Paper, paper products, printing and publishing
27	Chemical, petroleum and coal products
28	Non-metallic mineral products
29	Basic metal products
31	Fabricated metal products
32	Transport equipment
33	Other machinery and equipment
34	Leather, rubber, plastic and other miscellaneous manufactured products

Source: Australian Standard Industrial Classification, 1983 edition.

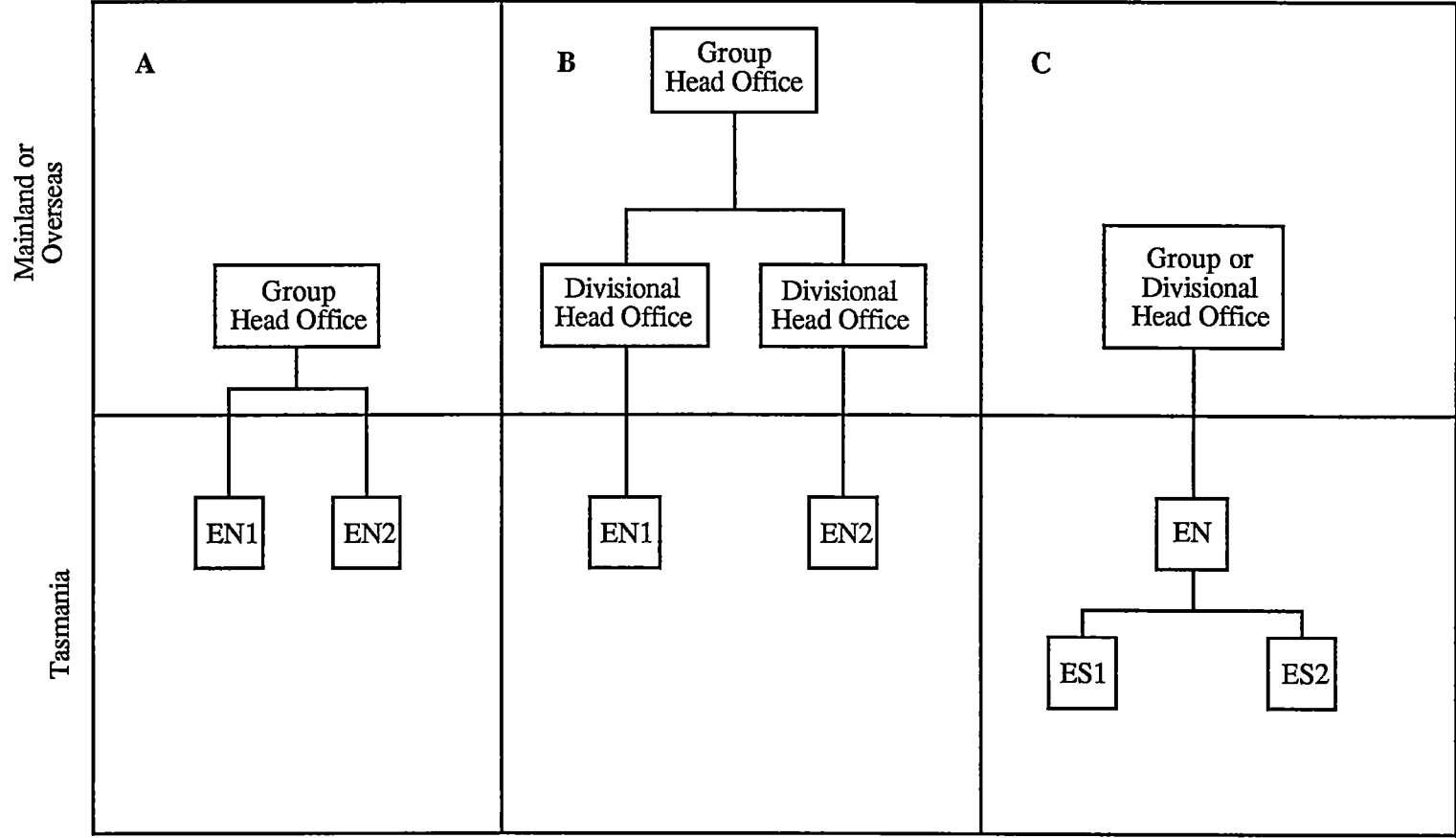
comprising all the operations (including subsidiary companies) in Tasmania of a single operating legal entity. To identify the processes affecting individual enterprises, the crucial element in defining the Tasmanian enterprise is its independence as a decision making body. Enterprises which are owned by interests outside the state are defined on the basis of their operational autonomy and group reporting structures. Thus, Tasmanian operations of the same parent organisation which operate independently of one another within the state are treated as two separate enterprises (Figure 2.2A&B). Although these enterprises may report directly to the same group or divisional head office outside the state, each enterprise is considered by the parent company to be an independent operation within Tasmania. In applying this classification it is, therefore, ensured that independent enterprises of the same parent company are in no way responsible to one another in Tasmania. Non-locally owned operations within Tasmania which report to the same head office within the state are defined as establishments within a single Tasmanian enterprise (Figure 2.2C).

Given that the thesis is concerned with changes which have taken place among Tasmanian enterprises between 1980 and 1985, empirical research incorporates only those enterprises which were in operation in Tasmania throughout the study period. Thus, it is recognised that research centres upon structure and change within surviving enterprises. A lack of comprehensive data sources prohibited the inclusion of new firm formation and firm closures within the present study. However, familiarity with the study area suggests that most new firm formation and closure activity has taken place within the small firm sector, and has had negligible impact upon employment and the nature of segmentation within the state's manufacturing economy since 1980.

#### **2.4.4 The Business Establishment**

Tasmanian enterprises, as defined for this study, may be single site operations or comprise a number of separate establishments throughout the state. Specifically, the establishment covers all the operations of an enterprise conducted at or from a single location. Each establishment may undertake a single activity or a number of activities, and

**Figure 2.2: Delineation of Enterprise and Establishment for Non-Locally Owned Tasmanian Manufacturers**



Note: EN = Tasmanian enterprise  
ES = Tasmanian establishment

while the Tasmanian enterprise as a whole must meet the definitional requirements of a manufacturing operation (see section 2.4.2), individual establishments within the enterprise may be solely engaged in non-production (ie. retailing, transport or storage) activities. In defining the nature of segmentation within the state's manufacturing economy it is important to qualify the operational and power relations between establishments within multi-site enterprises, and how these relations have changed over the study period. Strategies of product development, diversification, market penetration and investment in production versus non-production activities each affect the power which establishments possess within the overall enterprise. The establishment is thus a crucial element in understanding the process and spatial implications of enterprise restructuring.

#### **2.4.5 Enterprise Ownership**

The division between indigenous and non-local ownership is important in evaluating structure and change within Tasmania's manufacturing economy, as the majority of the manufacturing workforce is employed by enterprises which are externally-owned. In order to compare the performance of indigenous and non-locally owned enterprises it is first necessary to establish a criterion upon which ownership is determined.

Legally, ultimate control over the activities of the business organisation is vested in the shareholders. Within small enterprises, ownership is typically held by those directly involved with the day to day operation of the firm. Within large organisations, however, it is the board of directors which monitors the activities of the organisation on a continuous basis and makes the majority of key development decisions. If an individual or group acting together owns 50 per cent or more of the total outstanding stock, they possess the voting power to determine the composition of the board of directors and thus possess ultimate control of the organisation. If the stock is widely dispersed among many shareholders, an amount less than 50 per cent is often sufficient for maintaining control.

For the Tasmanian study, an enterprise is considered to be non-locally owned if:

- (1) More than 50 per cent of its equity share capital is held by individuals or companies located outside Tasmania,

and

(2) no individual or group acting together in Tasmania possesses a share concentration greater than 30 per cent,

and

(3) the majority of board members reside outside the state.

Enterprises owned jointly (50 per cent each) by Tasmanian and external interests are defined on the basis of share concentrations among individuals and the location of board members. Only two enterprises were found to be jointly owned, with both subsequently being classified as indigenous operations since the respective local managing directors each control the entire 50 per cent Tasmanian share interest. Three other non-locally owned enterprises required detailed investigation to determine the extent of share concentrations among Tasmanian interests. For most enterprises, however, the identification of ultimate ownership was straightforward, requiring only reference to annual reports and contact with senior management in either Tasmania or on the mainland.

#### Branch Plants and Subsidiary Companies

Throughout the thesis, reference is made to non-locally owned enterprises in Tasmania which are either branch or subsidiary operations of an externally-located parent company. While both types of enterprises are non-locally owned, subsidiary operations represent a separate legal entity within the larger business organisation. Branch plants, on the other hand, are simply individual establishments under the direct jurisdiction of the controlling parent company. The majority of non-locally owned enterprises having subsidiary status manufacture a range of primarily resource-based products which is unique to the parent company's Tasmanian operation. The establishment of the operation as a separate subsidiary company within the parent organisation facilitates group reporting and accounting procedures, based upon product and market independence of the Tasmanian enterprise.

## 2.5 INFORMATION SOURCES

In order for empirical research to satisfy the thesis objectives, investigation must draw upon several sources of information.

Aggregate secondary data are used extensively in the first sections of chapter three to establish the historical context within which Tasmanian manufacturing has developed and the current economic climate in which manufacturers are operating. The background to restructuring within Australian manufacturing is also explained with reference to Australia's role within the global economic system and Tasmania's position within the national economy. Comparisons between Tasmania and the rest of Australia are largely dependent upon information obtained from the recent literature on industrial restructuring in the Pacific region, and data published by the Australian Bureau of Statistics (ABS). Additionally, unpublished data on industry by ownership are obtained from the ABS integrated register system so that patterns of external ownership within Australia can be assessed for each state. The integrated register system represents a continually updated database on business enterprises and establishments within each state. While the system provides the most current information on industry structure and activity, several problems involved in updating the directory suggest that the number of units recorded at any date may not represent the number of units actually operational at that time. The main variations arise because units which have ceased operation may not be identified as 'deaths' on the register for some time. Nevertheless, the register is the most useful source of general information on industry by ownership within Australia.

Although published data is required to establish the aggregate structure of the Australian and Tasmanian manufacturing economy, it is clearly inadequate as a means to investigate the detailed processes underlying segmentation and power networks among enterprises in Tasmania. Several studies including Jackson (1984) and Marshall (1982a) conclude that published statistics can seldom be disaggregated beyond the industry level. In particular, Marshall (1982a) argues that industrial research in the 1980s must combine aggregate information with information gained through an intensive study of business

organisations (p. 1677). This is certainly necessary in Tasmania where the small number of manufacturers (N=459) prohibits the detailed breakdown of published statistics because of strict confidentiality rules applied. In general, the ABS policy regarding the dissection of published data is to censor any cell in which there are less than seven enterprises operating. Thus, any dissection of Tasmanian manufacturing by ownership would be virtually useless as six of the twelve ASIC subdivisions within the non-local sector contain fewer than seven enterprises. An intensive approach to investigation requires that information be collected directly from the business enterprise. Therefore, information concerning the detailed structure of organisations, and identification of processes within the thesis are based primarily upon a survey of manufacturing enterprises throughout Tasmania. The following sections detail the design of the survey and the methodology employed in completing the interviews.

## **2.6 SURVEY DESIGN**

The survey structure utilised in the empirical analysis centres upon five primary areas of investigation, including:

1. The organisational structure of manufacturing enterprises.
2. Operational and power relations between enterprises in Tasmania.
3. Operational and power relations within multi-establishment enterprises in Tasmania.
4. Operational and power relations between non-locally owned enterprises and their parent firms outside Tasmania.
5. The nature of structural change and enterprise strategy within Tasmanian manufacturing between 1980 and 1985.

The structure of investigation demands that the nature of information obtained from each enterprise is, in part, dependent upon its ownership status and the number of establishments it controls in Tasmania. In deriving the final survey structure it was thus decided to produce two separate surveys: one for indigenous and the other for non-locally owned enterprises (see Appendix 1). The two surveys are identical apart from several additional questions which are included in the survey of non-locally owned enterprises,



concerning the nature of relations between the Tasmanian enterprise and the parent firm outside the state. Each survey also contains an identical set of questions which pertain only to multi-establishment enterprises in Tasmania. These questions were simply omitted in interviews undertaken with single-establishment operations. Information obtained within each of the five areas of investigation includes the following:

(\* indicates information which is relevant only to non-locally owned enterprises)

### **2.6.1 Organisational Structure of Enterprises**

- current ownership of the enterprise
- details of any ownership changes which have occurred since the enterprise began operations in Tasmania
- \* legal status of the enterprise (private or publicly owned, branch or subsidiary)
- number and location of establishments within Tasmania
- year in which each establishment became operational within the enterprise
- importance of non-production activities in the enterprise's early development
- length of time the enterprise has manufactured products in Tasmania
- \* location of direct reporting head office outside the state
- \* location of group head office
- \* legal status of the parent company to which the Tasmanian enterprise belongs (public or private, independently owned or a subsidiary of another firm)
- each product group's percentage contribution to the total value of sales (or transfer) of products manufactured by the Tasmanian operation in 1980 and 1985
- within each product group:
  - the primary form of material inputs (raw materials, semi-manufactured or finished components)
  - the percentage of inputs purchased from suppliers or agents in Tasmania
  - the primary level of processing (one-off, batch or continuous production runs)
  - the final form of the manufactured product(s) (semi-manufactured, finished componentry or final product)
  - spatial sales distribution of manufactured product(s) (by percentage value sold throughout Tasmania, to customers on the mainland and overseas)

### 2.6.2 Operational and Power Relations Between Enterprises in Tasmania

- primary inputs used in the manufacturing process and the degree to which the Tasmanian enterprise is dependent upon a few key suppliers
- sales methods used by the Tasmanian enterprise (wholesalers, retailers, direct sales to the public, government tenders and transfers of products to other establishments of the parent firm outside Tasmania), and the degree to which the enterprise is dependent upon a few key customers or a particular marketing strategy
- the importance of subcontract work as a source of income for the Tasmanian enterprise
  - subcontract income as a percentage of total turnover during 1980, 1983 and 1985
  - percentage of subcontract income during 1985 received from the five most important clients
  - other specific details concerning the five most important clients (including their name, location, and the nature of subcontract work undertaken for them by the Tasmanian enterprise)
- the importance of subcontract work contracted out by the Tasmanian enterprise
  - subcontract costs as a percentage of total costs during 1980, 1983 and 1985
  - percentage of subcontract costs during 1985 allocated to the five most important subcontractors working for the Tasmanian enterprise
  - other specific details concerning the five most important subcontractors (including their name, location and the nature of subcontract work undertaken for the Tasmanian enterprise)
- the position of the Tasmanian enterprise as a franchisee or licensee of another firm
  - the type of franchise or licence involved (eg. retail, product design)
  - how long the arrangement been in operation
  - details of the franchisor(s) involved (including their location)
  - the percentage of the Tasmanian enterprise's total turnover during 1985 resulting from the sale of goods or services under franchise or licence arrangements to another firm
- the position of the Tasmanian enterprise as a franchisor or licensor to another firm
  - the type of franchise or licence involved
  - how long the arrangement has been in operation
  - details of the franchisee(s) involved (including their location)
  - the percentage of total turnover during 1985 received from other firms operating under franchise or licence to the Tasmanian enterprise

- market agreements between enterprises in Tasmania (including formal and informal arrangements)

### **2.6.3 Operational and Power Relations Within Multi-Establishment Enterprises in Tasmania**

- activities undertaken at each establishment (ie. manufacturing, retailing, wholesaling, etc.)
- position each establishment holds within the overall chain of enterprise operations
- occupancy status of each establishment (owned, rented or leased)
- product(s) produced at each establishment which is engaged in manufacturing activities
- autonomy between individual establishments and the enterprise's head office in Tasmania
- the nature of on-line computer and other communication linkages between establishments of the Tasmanian enterprise
  - importance of recent developments in terms of the enterprise's administrative structure and autonomy granted to each establishment
- location at which business services were undertaken within the enterprise during 1985, and how this had changed since 1980
- shifts in functional responsibilities between establishments from 1980 to 1985
  - functions involved (eg. accounting, marketing, product design)
  - reasons for the shift(s) taking place
  - establishments involved in the transfer
  - resulting change in the type of employment (managerial, clerical, production, etc.) at each establishment
- enterprise development strategy and its effect upon individual establishments within the operation

### **2.6.4 \* Operational and Power Relations Between Non-Locally Owned Enterprises and the Parent Firm Outside Tasmania**

- product independence of the Tasmanian enterprise
  - products manufactured by the enterprise in Tasmania which are not also produced by other establishments of the parent company outside the state
  - products manufactured by both the Tasmanian enterprise and other establishments of the parent company outside Tasmania
  - strategies behind the product range manufactured in Tasmania (ie. tied to local resource, the parent company having similar operations in each state, etc.)

- percentage of turnover in 1985 from the sale of manufactured products which are unique to the Tasmanian enterprise
- dependency upon the parent company outside the state for material inputs used in the manufacturing process
- dependency upon the parent company outside the state as a destination of products manufactured by the enterprise in Tasmania
  - percentage of turnover in 1985 from the sale or transfer of manufactured products to other establishments of the parent firm outside Tasmania
- the importance of the parent company as a source of finance for capital investment undertaken by the Tasmanian enterprise between 1980-85
- shift(s) in functional responsibility between the Tasmanian enterprise and establishments of the parent company outside Tasmania between 1980-85
  - functions involved (eg. accounting, marketing, product design)
  - reasons for the shift(s) taking place
  - direction of shift(s) (into or out of Tasmania)
  - resulting change in employment (managerial, clerical, production, etc.) within the Tasmanian enterprise
- the nature of on-line computer and other communication linkages between the Tasmanian enterprise and establishments of the parent company outside the state
  - importance of recent developments in terms of autonomy and administrative structure of the Tasmanian enterprise
- independence of the Tasmanian enterprise in planning and carrying out its business service requirements
  - type of services required by the enterprise
  - parent company as a source of supply
  - changes in service activity between 1980-85
- level of autonomy granted to the Tasmanian enterprise
  - changes between 1980-85

#### **2.6.5 The Nature of Structural Change and Enterprise Strategy Between 1980 and 1985**

- capital investment
  - total value of investments made by the enterprise in Tasmania between 1980-85

- details of each major investment
  - type of investment (land, building, transport, etc.)
  - investment in replacement or additional equipment?
  - alter existing technology, output or employment?
  - new or used, purchased or leased?
  - location of the investment in Tasmania
  - location at which the decision was made to undertake the investment
  - primary and secondary sources of finance
- details of capital investment to which the Tasmanian enterprise is committed within the ensuing twelve months
- total book value of assets (land, buildings, machinery & equipment) held by the enterprise in Tasmania during 1985
- turnover
  - total turnover by the enterprise in 1980 and 1985
  - percentage of turnover during 1985 accounted for by goods actually manufactured by the enterprise in Tasmania
    - how and why this percentage has changed since 1980
- output
  - percentage change in physical output of manufactured products between 1980-85
- product changes
  - details of any new product(s) manufactured by the enterprise in Tasmania between 1980-85
    - new product(s) or alteration of product(s) already being produced?
    - source of new products\* (transfer or branch of product(s) from an establishment of the parent firm on the mainland, or first produced in Tasmania)
  - details of any product(s) discontinued by the enterprise in Tasmania between 1980-85
    - type of product(s)
    - reason(s) for discontinuation
- employment during 1980 and 1985
  - male and female

- full-time and part-time
- by employment type (managerial, clerical, production, etc.)
- qualitative information concerning:
  - future strategies of the enterprise in Tasmania
  - major barriers to growth
  - managers' perspective on the role of the state government in encouraging local manufacturing

Emphasis throughout much of the survey is on changes which have taken place within the enterprise between 1980 and 1985. The decision to base the survey upon the five year study period was made for two reasons. First, it was necessary to select a timeframe within which respondents could accurately recall the specific details of the enterprise's operations. Given the level of detail required, it was believed that reference to 1980 was possible without having to consult historical records. Second, the particular set of economic events which influenced the state's economy between 1980 and 1985 highlight the importance of understanding the nature of segmentation and structural changes taking place throughout the period. While it is argued that the five year period, in aggregate, represented the continuation of a long-term decline within the Tasmanian (and Australian) manufacturing economy, the period between 1982 and 1984 was particularly difficult for most manufacturers throughout the state. During this time, high interest rates severely curtailed both private and public sector investment in construction activities. Tasmanian sawmillers dependent upon export sales faced a virtual collapse of the Victorian timber market, and many industries deferred major investment projects due to uncertainty over rates of tariff protection in the wake of the 1983 federal election. By late 1984 the economy had recovered to levels similar to those experienced in 1980. The particular five year study period thus permits an examination of segmentation and enterprise strategy within the context of a short-term acceleration in declining economic conditions and the range of adjustments made at the level of business enterprise.

A central objective in designing the survey was to obtain as much information as possible at the establishment level. The degree of power which an enterprise holds is best observed through the activities of its individual operating units in relation to both one

another and the market within which each is operating. Emphasis upon the establishment is particularly important in examining enterprises which are more diversified and control a number of establishments engaged in very different activities.

The final structure of the survey is organised in such a way as to maximise the response rate to each question and to obtain the greatest possible degree of accuracy from each respondent. The order of questions within the survey is thus based upon the complexity and confidentiality of the information required. Questions most readily answerable and least likely to be regarded as confidential were asked during the early phases of each interview. Questions requiring more detailed responses or containing more sensitive material were placed in the latter half of the interview schedule. Whenever possible, questions were also grouped on the basis of a particular topic (such as marketing or investment) so that transition between topics was made clear to the respondent, allowing him to focus upon one specific aspect of the enterprise's operation at a time. The order of questions within the survey is as follows:

(\* indicates information which is relevant only to non-locally owned enterprises)

#### Question

<u>Number</u>	<u>Central Topic</u>
1	ownership of the enterprise
2	operational details of each establishment
3	historical details of the enterprise (changes in ownership, importance of non-production activities, length of operation)
4-6*	details of the parent company to which the Tasmanian enterprise belongs (legal status, location of reporting and group head offices)
7-8	details of each product group (type of inputs used, input/output linkages, nature of processing undertaken and form of final product)
9	specific information concerning the source of primary material inputs (to establish whether the enterprise is dependent upon a few suppliers)
10-13*	operational linkages between the Tasmanian enterprise and establishments of the parent company outside the state
14	operational linkages between establishments of the enterprise in Tasmania

- 15 details of new products produced by the enterprise in Tasmania between 1980-85
- 16 details of products discontinued between 1980-85
- 17-18 sales methods (wholesalers, retailers, etc.) used by the enterprise during 1985
- 19 capital investment between 1980-85
- 20 details of investments to which the enterprise is committed within the next 12 months
- 21 total value of assets held by the enterprise in Tasmania during 1985
- 22-23\* shifts in responsibility between the enterprise and establishments of the parent company outside Tasmania between 1980-85
- 24 shifts in responsibility between establishments of the enterprise in Tasmania between 1980-85
- 25\* details of on-line computer linkages between the enterprise and establishments of the parent company outside Tasmania
- 26 details of on-line computer linkages between establishments of the enterprise in Tasmania
- 27 details concerning the usage of other communications technologies (ie. telex, facsimile, dedicated phone lines, etc.)
- 28-29 locations at which business services are undertaken, and how they may have changed between 1980-85
- 30 locations at which key operational decisions are made within (or for\*) the enterprise, and how they may have changed between 1980-85
- 31\* specific purchasing limits of the enterprise, above which approval is required from the parent company outside Tasmania
- 32-33 nature of subcontract work undertaken by the enterprise in Tasmania
- 34-35 nature of work subcontracted out by the enterprise
- 36 details of the enterprise's involvement as a franchisee operation
- 37-38 details of the enterprise's role as a franchisor to other firms
- 39-40 turnover during 1980 and 1985
- 41 sales of goods manufactured by the enterprise in Tasmania, as a percentage of total turnover during 1985
- 42-43 details of employment by the enterprise during 1980
- 44 change in the volume of manufactured output between 1980-85



Much of the information obtained throughout the survey is based upon categorical data. However, the identification of processes and enterprise strategies requires more than the respondent's answers to a set of standardised questions presented in the survey. For this reason, most questions were followed-up by a series of informal prompts intended to obtain additional qualitative information regarding the particular circumstances within which various decisions were made or events had taken place. By obtaining more detailed qualitative information, the prompts also provide a way to check the reliability and accuracy of the respondent's initial reply to a particular question. For questions relating to investment spending, the value of capital assets, turnover and employment, it was desired to obtain exact monetary values and numbers of persons employed. Given that these represent some of the most sensitive questions in the survey, respondents refusing to provide detailed information were then asked to select a category, comprising a range of values, within which the precise value was located.

The final sections of the chapter summarise the way in which enterprises were selected for study, and the methodology employed in conducting the interviews.

## **2.7 ENTERPRISE SELECTION**

The database utilised in the study includes 166 manufacturing enterprises throughout Tasmania, selected from a comprehensive listing of all known manufacturers compiled jointly by the author and the Tasmanian Development Authority (TDA). Between September and November 1984 the author was employed full-time by the TDA to assist in updating the Tasmanian Manufacturers Directory (TDA, 1985). During the three month period, the list of manufacturers was compiled from previous directories, information obtained from several state government departments and cross-references made against a listing of manufacturers provided by the Hobart office of the Australian Bureau of Statistics. A brief postal questionnaire, requesting general information on ownership, organisational structure, products manufactured and employment, was then sent to all enterprises believed to be involved in production activities. In addition, the TDA

undertook an extensive media campaign throughout the state, encouraging all manufacturers to either reply to the questionnaire or to contact the Authority if they had not yet received one.

The author's direct involvement in designing the TDA's questionnaire and undertaking follow-up contact with individual enterprises was invaluable in ensuring that all organisations included in the directory were manufacturers, and that sufficient (and accurate) detail on ownership, industry and employment was available for subsequent use in selecting enterprises for thesis research. It is strongly believed that the directory ultimately provided the best possible listing of manufacturing enterprises from which to select the database utilised in the thesis.

Following the thesis objectives outlined in Chapter 1, the major criteria in selecting enterprises were to represent:

1. The activities of indigenous and non-locally owned enterprises in Tasmanian manufacturing.
2. Small, medium and large business organisations.
3. A proportionate number of enterprises from each of the state's three major regions (see Figure 2.1 ).
4. Multi-establishment enterprises.
5. A wide range of enterprises by industry.

Of these, representation of enterprises by ownership, employment size and location was regarded as most critical. Using five employment groups, the population of enterprises derived from the manufacturers directory is presented in Figure 2.3. The decision to use these five groups in the selection procedure was based upon a general familiarity of enterprise structure in Tasmania. Definitions of small, medium and large firms used in later chapters are given in section 3.4, and are aligned more closely with the identification of process.

Because of the population of enterprises shown in Figure 2.3, it was possible to include all 86 non-locally owned enterprises and all 15 locally owned enterprises employing over 100 persons. A further 27 locally owned, multi-establishment enterprises employing less than 100 persons were included so that all multi-establishment operations

**Figure 2.3: Population of Manufacturing Enterprises By Location of Tasmanian Head Office**

Locally Owned					
Employment Size		South & East	North & Northeast	Northwest & West	Total
	1-9	96	51	35	182
	10-25	47	31	23	101
	26-50	24	15	12	51
	51-99	13	7	5	25
	100 +	7	4	4	15
	Total	187	108	79	<u>374</u>
Non-Locally Owned					
Employment Size		South & East	North & Northeast	Northwest & West	Total
	1-9	3	4	4	11
	10-25	11	5	2	18
	26-50	1	4	4	9
	51-99	6	7	1	14
	100 +	12	13	9	34
	Total	33	33	20	<u>86</u>
All Enterprises					
Employment Size		South & East	North & Northeast	Northwest & West	Total
	1-9	99	55	39	193
	10-25	58	36	25	119
	26-50	25	19	16	60
	51-99	19	14	6	39
	100 +	19	17	13	49
	Total	220	141	99	<u>460</u>

Source: 1985-86 Tasmanian Manufacturers Directory

in Tasmania were selected for study. Finally, an informed non-random stratified sample of 40 locally owned single-establishment enterprises, employing fewer than 100 persons, was included to bring the total number of indigenous enterprises to 82. Stratified by employment size and the location of enterprise head office, the number of enterprises selected in each region is roughly proportional to the population shown in Figure 2.3. The final database of the study is summarised in Table 2.4. The refusal of one indigenous and one non-locally owned enterprise (each employing over 100 persons) to take part in the study, brought the final database to 166 manufacturing enterprises. Although a further four indigenous enterprises refused to take part, and six subsequently failed to meet the definitional requirements of a manufacturing operation (see section 2.4.2), they were all small single-establishment enterprises which were subsequently replaced within the sample. In total, the 166 enterprises included in the study employed 92 per cent of Tasmania's manufacturing workforce in 1985.

Given that the 40 locally owned single-establishment enterprises, employing under 100 persons, represent a 12 per cent sample of the population from which they were selected, these enterprises are weighted so that aggregate comparisons between indigenous and non-locally owned firms are based upon the total number of manufacturing enterprises in Tasmania. Each enterprise is weighted according to its location and average employment during 1985 to estimate, as closely as possible, the population from which it was selected (see Appendix 2). The highest weights apply to those enterprises employing the fewest people, as the largest share (48.6 per cent) of indigenous operations employ fewer than 10 persons. Conversely, enterprises employing between 26 and 99 persons are well represented in the sample which was selected, and are assigned the lowest weights. Throughout the study, care is taken to ensure that the relevance of processes relating to small indigenous enterprises is not overstated through the application of the weighting procedure. Weighting is primarily undertaken in order to identify the general character of the state's indigenous manufacturing sector (Chapters 3 and 5) and the nature of structural change between 1980 and 1985 (Chapter 6), and precedes the more detailed investigation of processes within and between business organisations.

**Table 2.4: Enterprises Included in the Final Database**

Enterprise Group	Number of Firms	Percentage of Firms
<b>Non-Locally Owned</b>		
Single Establishment	51	100
Multi-Establishment	34	100 <sup>1</sup>
<u>Total</u>	<u>85</u>	<u>100</u>
<b>Locally Owned</b>		
Over 100 Employees		
Single Establishment	2	100 <sup>1</sup>
Multi-Establishment	12	100
Under 100 Employees		
Single Establishment	40	12
Multi-Establishment	27	100
<u>Total</u>	<u>81</u>	<u>22</u>
<b>All Enterprises</b>	<b>166</b>	<b>36</b>

<sup>1</sup> Within this group, all enterprises were to be included in the database, but one enterprise declined to take part. The 100% thus refers to the percentage of remaining enterprises which were ultimately interviewed.

## 2.8 SURVEY ADMINISTRATION

For each of the 166 enterprises included in the study, the author conducted a personal interview with senior management, with all interviews being completed between August 1985 and March 1986. A personal interview approach was clearly the only satisfactory method to obtain the level of detailed information required from each enterprise. This method is particularly suitable for Tasmania, where there is only a small number of manufacturing enterprises to approach. Although postal questionnaires and phone interviews are less expensive and time consuming, the disadvantages associated with them are well documented (Hanson, 1985; Marshall, 1979; Oakey, 1983a; Townroe, 1971) and were considered far too limiting for the present study.

Prior to approaching each enterprise, as much information as possible regarding its operation was collected from annual reports, local newspapers and a historical database on manufacturers maintained by the TDA. This information was invaluable as a general introduction to the activities of each enterprise, and saved considerable time during the interviews which would have otherwise been spent detailing the basic organisational and product structure of the enterprise. Instead, this information was quickly confirmed with each respondent at the beginning of the interview. In many instances, background research on individual enterprises also provided information on specific investment projects, product developments or market strategies which could be followed-up as informal prompts during the interview with senior management. Moreover, respondents were generally more cooperative upon realising that considerable effort had been made to gain an understanding of their operation prior to the interview.

Upon completion of background research, the chief executive (in Tasmania) of each enterprise was sent a letter of introduction from both the TDA and Tasmanian Chamber of Industries (see Appendix 1), requesting his cooperation in completing the survey. The letters each summarised the objectives and relevance of the investigation, the manner in which enterprises were chosen for study and the approximate length of time the interview

would take. Additionally, the letters guaranteed that all information obtained would remain strictly confidential. At the time, the author was actually engaged as a consultant to the TDA, investigating the performance of non-locally owned and indigenous manufacturing operations between 1980 and 1985 (Hood and Wilde, 1986). The introductory letters thus make reference to both the consultancy project and thesis research. Letters were sent to approximately ten enterprises at a time so that interviews could be scheduled without conflicting with one another. Within a few days of posting the letters, the chief executive of each enterprise was contacted by the author to confirm that the enterprise met the definitional requirements of a manufacturing enterprise (see section 2.4.2), and to schedule an appointment for the interview. This initial contact was by phone rather than by personally visiting the enterprise, as this placed less pressure upon the chief executive to grant an immediate appointment. Scheduling an appointment over the phone allowed the chief executive to select a time most suitable for himself, and minimised the risk of being passed-on to another employee within the organisation likely to be less knowledgeable of the firm's operations.

All interviews were undertaken by the author in an effort to maintain consistency in approach and interpretation of survey responses. This decision was particularly important given the amount and significance of informal discussion within each interview. During the interviews, several questions were accompanied by 5 x 7 inch cards containing information clarifying the question or presenting a list of categorised responses from which the respondent was requested to select the appropriate answer (see Appendix 1). The use of cards also maintained the respondent's interest in the survey, helped focus attention upon specific topics, and minimised the time required to complete each interview. In several instances, interviews concluded without having completed the entire survey. Usually this was the result of the respondent having to consult records containing precise employment, investment or sales figures. Such information was ultimately posted to the university or obtained through follow-up phone contact. After completing each interview, all qualitative information regarding the enterprise was summarised and coded into general categories so that relevant processes could later be traced to the specific organisations from

which they were identified.

## **2.9 PILOT STUDY AND FINAL ALTERATIONS TO THE SURVEY**

In order to assess the content and organisation of the manufacturing survey, a pilot study was undertaken using ten enterprises selected from the database. A wide range of operations was chosen based upon ownership, employment size and industry. Each respondent was aware of the pilot study, and was asked to comment on any specific difficulties which were encountered during the course of the interview. Most respondents answered the questions with minimal difficulty and were most helpful in offering valuable comments. Upon completing the ten interviews several conclusions were drawn, including that:

1. The introductory letters from the TDA and Chamber of Industries were extremely important in gaining the cooperation of senior management.
2. The adoption of a five year study period was reasonable, although there was potentially some difficulty involved in interviewing senior executives who had only recently been appointed to the Tasmanian enterprise. Where this occurred, other managers were requested to sit-in on the interview and assist the chief executive in providing historical information.
3. Most interviews took about one hour to complete, and this appeared to be the maximum length of time one could expect managers to maintain interest and cooperation in the survey. With only a few exceptions, one visit to each enterprise was sufficient to obtain the necessary information.
4. A few questions required alteration so that less time was spent on them or they appeared less threatening to the respondent.

In particular, changes were made to the following two questions:

**Question 7** Several executives refused to provide information regarding the percentage contribution of each product group to the total value of sales during 1980 and 1985. This was particularly evident within enterprises in which individual product groups contained only one product. The question



was changed to appear less formal, requesting only general information concerning the relative contribution of each product group over the study period.

- Question 9      This question, requesting detailed information on individual suppliers of material inputs, proved taxing for the respondents and took too long to complete in relation to the utility of the information involved. The question was shortened, to include information on the three most important inputs, their percentage share of total material costs, and the number of usual suppliers. Further prompts were used to gain additional qualitative information concerning the nature of dependency relations between the enterprise and its suppliers.

As a background to the examination of processes working within the local manufacturing economy, the following chapter establishes the notion of uneven development character as it applies to Australia, Tasmania, and the state's manufacturing economy in particular. A political economy approach is undertaken to bring together the influence of global capital and federal government policy, in directing the form and magnitude of restructuring taking place within Australia's manufacturing sector. This background is essential to the understanding of enterprise segmentation and restructuring in the Tasmanian context. In addition, the general structure of manufacturing in Tasmania is established, based upon ownership, industry, market orientation and employment size.

## **CHAPTER 3**

### **THE AUSTRALIAN AND TASMANIAN MANUFACTURING ECONOMIES**

The present chapter summarises the events leading up to the present phase of Australian industrial restructuring, and describes the current economic context within which Australian, and particularly Tasmanian, manufacturers are operating. The structure of manufacturing and nature of economic change within Tasmania can only be understood when viewed in relation to changes occurring at the national and international levels of spatial activity. The chapter is therefore divided into four central themes. First, a political economy approach, highlighting the development and power of capital in Australia, is used to evaluate Australia's present position within the global economic system. Extending this approach, the processes and resulting patterns of industrial change within Australia are then examined in more detail, with particular reference to the period since 1970. Third, Tasmania's position within the Australian industrial system, and participation in the current phase of national restructuring are qualified as a background to the more detailed investigation of business enterprise at the state level. Finally, survey data are used to provide a general overview of enterprise structure within Tasmania's manufacturing economy. Following from this general introduction, later chapters focus in more detail on the processes which have influenced the current structure of enterprise segmentation in Tasmania.

As argued in Chapter 1, a neo-Marxist approach currently offers the most useful general theoretical framework through which to examine the spatial impacts of economic restructuring. Central to the neo-Marxist perspective is that explanations of change are based upon a general understanding of the relations between capital, labour and the state, rather than a narrowly structured economic analysis of a limited number of factors which are generalised in order to explain patterns of development. Several authors have applied a

neo-Marxist approach to the study of Australian industrial development (Taylor and Thrift, 1981b; Stilwell, 1982, 1983; Alexander, 1983; Gibson and Horvath, 1983a). While these studies vary in the degree to which they reflect the intensity of Marx's original writings, each highlights the power of capital and state organisations in the evolution of Australia's industrial development, given the influences of foreign ownership and emerging forms of global capitalisation. The following paragraphs summarise the development of capital in Australia, drawing upon several key arguments presented in this literature (Figure 3.1).

### **3.1 AUSTRALIAN INDUSTRIAL DEVELOPMENT**

As demonstrated by Wilde (1986), the past decade has seen unprecedented change within the Australian industrial system. Various authors have linked the present restructuring crisis within Australian industry to observable outcomes such as the fragmented structure of certain production activities, the low productivity and high cost of Australian labour, or the increasing share of the domestic market controlled by foreign producers. It is argued here however that the current phase of restructuring can only be placed into a proper perspective if the central processes within and between various segments of capital and state organisations are assessed in terms of their historical and spatial relations. In adapting this approach, the development of Australia's capital structure and the nature of capital-state relations are highlighted below. Specific reference is given to the influence of external capital in Australia's development, particularly in light of the recent concentration of corporate power among transnational and global corporations.

#### **3.1.1 Capital Development Prior to 1945**

Since British colonisation of Australia in 1788, the direction and magnitude of Australian industrial development have been largely guided by the inflow of foreign capital. Until the late 1800s British capital was primarily involved in developing Australia's pastoral and mining sectors as these staple exports were of great value to the

Figure 3.1: AUSTRALIA'S INDUSTRIAL DEVELOPMENT

Major Developments Relating To				
Period	Capital	State	Labour	External
Colonisation (1788 - 1890)	- Heavy inflows of British capital to fund pastoral and mining activities - Dependence upon British markets for staple exports - Reliance upon manufactured imports - Indigentous manufacturing base minimal, and oriented toward basic demands of local markets	- Little interaction between the six colonies before 1850 - Maintenance of open trading system with Britain	- Heavy immigration to rural areas and mining settlements - Urban labour primarily engaged in merchant activities - Dominance of power among merchant class	- Early phases of European industrialisation creates demand for primary products - World recession during the 1890s destabilises Australian merchant capital
Early Industrial Development (1890 - 1940)	- Major trading links remain with Britain - Rural decline due to overinvestment in pastoral activities, drought, and interwar capital - Overseas capital	- Protection of manufacturing against overseas competition - Inter-state competition for capital - Inter-state competition for capital	- Heavy immigration to urban areas - Availability of urban labour reverse for manufacturing development - Stagnation of productivity and real wages - High union participation rate following Federation	- WWI Interruption of external capital into Australia, and accessibility to British market - World depression creates balance of payments crisis - Increase in American direct investment into Australia
Rapid Industrialisation (1940 - 1974)	- Significant capital investment in wartime production activities - Concentration of capital and power in Melbourne and Sydney - Establishment of monopoly subside of production - Increase in foreign ownership of Australian industry - Indigentous capital dominated by small scale production for the domestic market - Inter-state competition for investment increases the bargaining power of capital	- Period of maximum production against import competition - State government's competitive for manufacturing development - 25 per cent tariff cuts in 1973 - Rapid increase in inflation with the global economy	- Industrial lobby very strong - Rapid increases in labour costs under Whitlam labor government - Period of maximum immigration	- WWI Rapid economic growth through establishment of defence industries - Participation in post-war boom - Shift in trade links away from Britain - Multinational development and the establishment of foreign branches in Australia - OPEC oil crisis of 1973/74
Industrial Decline (1974 - 1987)	- Crisis in monopoly capital following manufacturing performance decline in manufacturing sector - Diversification of indigenous capital - Beginning of Australian direct and portfolio investment overseas - Continued concentration of ownership in the indigenous capital sector - Selective nationalisation among companies	- Boldly defined federal policy toward tariff reductions - Australia's current account deficit - Rapid increase in the unemployment rate - Selective immigration policies introduced - Foreign growth among Pacific Rim nations - Substantial devaluation of the Australian dollar - Increase in production among major trading partners - Imports capture larger share of the Australian market	- Selective immigration policies introduced - Rapid increase in the unemployment rate - Moderate rates of productivity growth relative to major trading partners	- Foreign growth among major trading partners - Imports capture larger share of the Australian market

Source: Author's summary of the literature.

rapidly industrialising Britain and western Europe. Between 1850 and 1890 in particular wages, productivity in pastoralism, levels of trade and inflow of capital all increased markedly. However, by 1890 Australia's manufacturing sector had developed only to the stage of small factories producing a limited range of products (mainly foodstuffs and building products) which met the immediate needs of the local population. At the time of federation in 1901, manufacturing industries employed less than 11 per cent of the Australian workforce (Linge, 1979a). The majority of power within Australia was held in mercantile, financial and speculative wealth, controlled by those who had a great deal to gain from open trade with Britain. However, the global economic recession during the 1890s, a series of droughts in the years following federation, and interruptions in British capital and trade flows during World War I, contributed to declining productivity in the rural economy and the destabilisation of Australia's dominant merchant class (Gibson and Horvath, 1983a).

Working against the free trade lobby of merchants and farmers, industrialists and labour organisations were able to gain increased protection against foreign competition soon after federation, which allowed Australia to expand its manufacturing base without having to compete openly against overseas producers. Nonetheless, Australia's transition to an industrial society was an uneasy one, and it was not until the latter part of the 1930s that per capita growth rates were sustained at or above levels realised prior to 1890 (Butlin, 1962). In sharp contrast to the period of virtually full employment between 1850 and 1890, unemployment had risen to 10.8 per cent by 1896 and 11.4 per cent by 1921. During the global depression of the early 1930s, Australia's unemployment rate peaked at over 30 per cent. By this time, the trade union movement had experienced rapid growth and over 35 per cent of the workforce held union membership (Connell, 1980). The stagnation of Australia's industrial economy lasted until 1941 when production for the Allied war effort began. Demand for defence-related production and the willingness of the federal government to help finance industrial expansion provided an important boost to the developing basic metals, fabricated metals and heavy engineering industries.

### **3.1.2 Industrialisation Between 1945 and 1974**

Immediately following the war, efforts in Britain and Europe centred upon reconstruction at home rather than on development overseas, and the limited availability of shipping and essential equipment hampered the growth of Australia's industrial base. By the late 1940s the global shortage of physical capital had eased and savings for Australian industrial expansion arose from an increase in foreign investment, mineral discoveries (particularly of gold) and the continuing, albeit stable, profitability of pastoralism. Unlike most other industrialised countries, rapid industrial development in Australia was not contingent upon the ability of industrialists to maintain downward pressure on wages in order to generate a level of capital accumulation necessary to sustain industrialisation. Rather, 'the traditional source of capital accumulation, the surplus-value of workers, was partly replaced by capital inflow and mineral exports' (McFarlane, 1972, p. 38). This was particularly the case during the 1950s and 1960s when mineral exports consistently maintained relatively stable balance of trade figures, and the efficiency of Australia's manufacturing industry was guided primarily by the nature of competition among domestic producers selling within the local market. Under these conditions Australian workers were able to enjoy steadily rising average real wages.

#### **Industry Protection**

Between 1945 and 1970 the industrial lobby gained increasing strength, and was backed by numerous organisations including the Associated Chambers of Manufacturers of Australia, the Australian Industries Development Association, the Manufacturing Industry Advisory Council, and the Metal Trades Industry Association. These organisations all lobbied for high levels of industry protection, access to the perceived benefits of foreign capital (including technology, management skills, new products, processes and services), and monetary and fiscal policies which would maintain a stable domestic consumer market. In particular, the Metal Trades Industry Association has been extremely influential in securing the relatively high wage conditions of Australian workers since the 1940s (Rattigan, 1986). Strongly influenced by the industrial lobby, the federal

government adopted a post-war industrial policy aimed at import substitution and the establishment of high levels of protection through the use of tariffs, import quotas, bounties, excise taxes, and export incentives granted to locally-based producers. While the level of protection varied considerably between industry sectors, the average rate of assistance for manufacturing as a whole was such that the level of import penetration into the domestic market was minimal in the post-war period until the mid-1970s (Edwards, 1986). Industries receiving the highest rates of assistance included those producing textiles, clothing and footwear, transport equipment and fabricated metal products. In general, these industries were characterised by low levels of output per worker, or were highly fragmented among firms and locations as production efficiency was less critical under the Liberal-Country Party coalition's protectionist policy agenda. By 1968 the average effective rate of assistance granted to industries receiving above average levels of protection was 63 per cent, and the average rate granted to manufacturing as a whole was over 35 per cent. Industries receiving the least amount of assistance were those which had been either traditionally export oriented (eg. basic metals) or naturally sheltered from import competition (eg. food and beverage, and non-metallic mineral products). Under the direction of the Tariff Board (established in 1921), assistance was granted on a made-to-measure basis, clearly favouring marginal producers and products (Rattigan, 1986).

Behind this tariff wall, Australia developed a broadly-based, stable industrial structure which was fragmented, technologically deficient and oriented toward the domestic market (Linge, 1979a). Overseas trade performance among industries receiving above average rates of assistance has been consistently poor, as their exports as a percentage of turnover has consistently remained below 6 per cent (IAC, 1986). The spatial fragmentation of Australian industry was encouraged by the fact that the federal government's industrial policy was oriented toward sectoral rather than spatial development planning. The spatial arrangement of production activities was virtually left to state governments which competed against one another for a larger share of capital investment. As Stilwell (1983) points out, competition between the states played right into the hands of capital which was often given subsidies, tax concessions, relocation grants or



cheap supplies of energy and resources to establish or expand operations within a particular state. Each state also established a preference system whereby locally-based producers were often granted contracts for public (and in some cases private) development projects even though inter-state suppliers had submitted tenders which were considerably lower. Together, state inducements and preferential purchasing schemes encouraged the inefficient distribution of private capital resources. In order to maximise the benefits of state assistance, organisations often adopted a strategy of locating small plants within several states at the expense of establishing a more efficient single-site operation.

In addition to the protection received against overseas producers, the focus of Australia's growing industrial sector upon the domestic market was also encouraged by the lack of development undertaken during the war, and the substantial immigration of Europeans in the post-war period. The level of labour productivity continued to rise until the 1960s, and manufacturing employment increased until 1974 when it peaked at 1.36 million. However, as Wilde (1981b) notes:

'the inherent weaknesses of Australian manufacturing, insulated from the world industrial system, were masked during the 1960s by price stability, full employment and the worldwide stability of exchange rates. In retrospect, however, it was clear that the growth and prosperity of manufacturing during the decade resulted much less from productivity increases than from a growing domestic market based on a high level of immigration' (p. 5).

The attractiveness of the domestic market and the stability of the international economy thus provided a false reassurance to local producers that Australia's industrial development was progressing in such a way as to ensure the long term profitability of production-based capital. There was clearly little incentive to export when it was possible to realise adequate and secure rates of profit within the national market.

### The Role of Foreign Investment

While federal policies maintained an insulated trading environment within which locally-based industry was encouraged to develop, the dominant fractions of capital were largely those which were foreign-based. Following the war, direct foreign investment

increased substantially as overseas capital endeavoured to reap the benefits of Australia's immigration and industry assistance policies. Foreign investment was predominantly geared toward large-scale production and undertaken by branches controlled by transnational business organisations. One of the first to set-up operations was General Motors which established its first production facility in 1945. Soon after, other transnationals followed, including Ford, Chrysler, IBM, Mobil, Esso and International Harvester. Crough and Wheelwright (1982) suggest that foreign ownership and control of Australian enterprise increased by more than 50 per cent under the Menzies government of the 1960s. Although British interests were well represented, the United States, and later Japan, were keen to establish industry behind Australia's trade barriers. As early as 1960, Britain was surpassed by the United States as the largest foreign-based source of industrial capital (Taylor and Thrift, 1981b). In virtually all cases, transnationals received the same (or more generous) state and federally-based incentives offered to indigenous capital. The attraction of big industry became the cornerstone of state policies, and in this regard, the transnationals were often able to assert maximum authority over other fractions of industrial capital which were less effective in competing for state assistance.

Direct foreign investment into Australia also assisted in encouraging the relative decline of individually owned and controlled enterprises, many of which found it increasingly difficult to compete against transnationals for access to operating resources and market shares. Nevertheless, corporate growth within the indigenous sector increased, and several large enterprises including the Broken Hill Proprietary Company Ltd, Colonial Sugar Refining Co., and Australian Paper Manufacturers Ltd consolidated their positions as powerful business organisations. However, by the late 1960s, 80 of the largest 200 enterprises were foreign owned, and foreign control of employment exceeded 50 per cent in a number of industry sectors (Fagan, et al., 1981). The mineral boom of the late 1960s and early 1970s attracted even greater flows of foreign capital, much of which was speculative. Foreign mineral investment increased by 300 per cent and by 1972 the American transnational, Utah Development Corporation, was returning the highest rates of profit of any company in Australia (Wheelwright, 1972). Concern over

foreign ownership and the 'selling-off' of Australian resources escalated, and in 1975 legislation was passed which required a minimum of 50 per cent indigenous equity ownership in all mineral ventures except for uranium mining which was to be wholly owned and controlled by Australian interests.

While it is difficult to quantify the precise impact of foreign ownership in Australia, considerable doubt exists as to how well the stock of foreign capital established between 1945 and the early 1970s has served the country's long-term economic interests. Although many of the operations established involved significant investment, they were largely the result of transnational strategies aimed at securing a profitable share of the growing Australian market. Most of the operations were based upon technologies developed overseas, primarily for use in the United States and Britain (Johns, 1978). The small size of the Australian market, relative to many other industrialised countries, often reduced the efficiency of the imported technologies. In many cases, the possibility of Australian-based subsidiaries of transnational corporations expanding into the growing Pacific market was constrained by their inward looking market strategies, dependence upon the parent organisation for finance and new technology, and inability to compete against other branches of the parent company, located outside Australia, for new markets.

The benefits of foreign ownership in Australia must also be questioned given the power which overseas capital has been able to exercise over successive federal and state governments. Through the mid-1970s the federal government maintained a very liberal attitude toward foreign-based enterprise, with considerable sums of public funds being employed to subsidise its development. The allegiance of foreign-based subsidiaries, however, clearly lies with the overseas parent company. Major decisions regarding investment, pricing, employment and product development are most often made in relation to the global strategies of the parent organisation rather than the development objectives of the Australian federal or state governments. Considerable debate has also centred upon the transfer of value from Australian operations of transnational corporations. The transfer of production and equity-generated profits out of Australia, and the application of intra-firm transfer pricing mechanisms are perhaps the most usual means by which transnationals

seek to appropriate and re-invest the surplus-value generated by their subsidiary operations. The sectoral and spatial pattern of this re-investment is determined not only by the viability of individual operations, but by the strategies of the parent companies which are influenced by the more general economic changes occurring globally (Rich, 1987).

Australia's role within the global economic environment is thus closely linked with the power held by transnational capital. Several authors, including Taylor and Thrift (1980) and Fagan, *et al.* (1981), have followed Wallerstein (1976) by describing Australia as semi-peripheral, in the sense that it plays a mediating role between core and periphery, both politically and in terms of the appropriation of surplus-value between industrialised and less developed nations. Although the world-system approach advocated by Wallerstein has been criticised for its simplicity (Wilde and Fagan, 1988), the nature of transnational development within Australia during the post-war boom, and subsequent debate surrounding its reorganisation since the 1970s (particularly within manufacturing), demonstrate the dominant nature of foreign-based enterprise throughout Australia's industrial history.

### Concentration of Power

As direct foreign investment increased and corporate organisation of indigenous enterprise became more firmly established, concentration of industry ownership and control emerged as one of the key elements in Australia's post-war economic development, manifesting itself in the establishment of the monopoly submode of production (Gibson and Horvath, 1983a). Evidence indicates that levels of concentration in Australia were at least as high as those experienced in most other industrialised nations through the early 1970s (Taylor and Thrift, 1980). By 1967 almost one-half of manufacturing income was generated by the 151 largest enterprises. Taylor and Thrift note that concentration of ownership was particularly high among Australia's 100 largest enterprises, especially within the mining, basic minerals processing, transport and communications sectors. The participation of foreign capital was clearly strongest in the mining sector, and the levelling-off of concentration after the 1970s was related, in part, to

a fall in world mineral demand and a shift in foreign industrial investment from Australian subsidiaries to the rapidly growing countries of the west Pacific (Helliwell, 1984).

An important spatial component to the sectoral concentration of power has been the centralisation of head office functions within Melbourne and Sydney. Taylor and Thrift (1980, p. 277) conclude that the polarisation of control within the Australian space economy through the mid-1970s had intensified to the point where the national economy could virtually be viewed as dependent upon decisions made in Melbourne and Sydney. As demonstrated later in the chapter, the concentration of corporate power within Melbourne and Sydney has greatly influenced the patterns of ownership, control and industrial development within Tasmania.

#### Government Policies Toward Global Integration

As early as the mid-1960s the pastoral, retail and import trade lobbies had begun to pressure the federal government to review its tariff policies. While the protection of production activities appeared to help create a strong manufacturing sector following the war, it became clear by the late 1960s that Australia had developed a manufacturing base which was not only heavily protected but ill-equipped to sell its products successfully in overseas markets.

Australia's share of world trade was below two per cent, and it appeared that managerial skills often concentrated upon political lobbying rather than on productivity, product innovation, and aggressive export marketing. The nation's balance of trade continued to rely upon rural-based exports which, despite the mineral boom of the late 1960s, had begun to face an increasingly volatile world market (Helliwell, 1984). Growth had begun to shift away from the traditional industrial centres of Europe, Britain and the United States, to nations of the west Pacific. In the early 1970s the economies of south east Asia had a combined GNP which was more than five times that of Australia (Bureau of Industry Economics, 1978). The region also began to account for a larger share of Australia's export income, primarily in mineral, rural and resource-based manufactured products. Conversely, trade with Britain was declining as Britain became more aligned

with EEC trade policies, leading up to its admission to the Community in 1973.

Following the publication of the Vernon Report in 1965 which criticised the government's tariff policies, the federal Liberal-Country Party coalition appeared committed to Australia's integration with the world economy, and to the establishment of a more narrowly-based, efficient and internationally competitive manufacturing sector. This involved reducing protection for internationally uncompetitive industries and allowing industries in which Australia had a comparative advantage to expand. Following their defeat of the Liberal-Country Party coalition in 1972, after thirty years of continuous government, the federal Labor government adopted a number of policies designed to encourage the restructuring of manufacturing industry. In 1973 the government reduced tariff protection by 25 per cent. An important consideration in applying the reduction was that it would reduce the disparities in assistance between industry sectors, providing the impetus for subsequent structural change. The reduction therefore applied to all products except those such as tobacco and alcohol which were subject to excise duties. While some authors appear to overstate both the immediate and long-term effects of the 25 per cent tariff reduction (for example, see Snape, 1977), others including Wilde (1986) suggest that its most critical feature was to signify the federal Labor government's commitment to increased integration with the global economy.

The tariff cuts of 1973 were made at a time when the domestic economy was growing, foreign capital continued to flow into Australia, manufacturing employment was at its highest point ever and Australia appeared well placed to restructure its production-base and become a major economic force within the growing Pacific region. However, the period since 1973 has seen a deterioration in Australia's economic performance, with a host of factors both internal and external to the Australian economy adversely affecting the process of profitable accumulation within manufacturing.

### **3.1.3 Economic Change Since 1974**

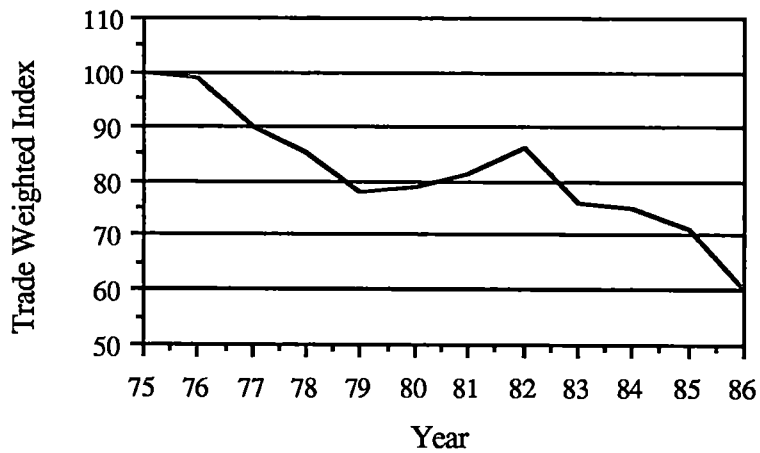
Within twelve months of the Labor government's decision to reduce tariffs by 25 per cent, the global economy entered the most severe economic recession since the Depression

of the early 1930s. Rising unemployment and wage costs, decreasing levels of foreign direct investment and a decline in the profitability of production capital have since characterised Australia's economy. Policies designed to increase Australia's integration into the global economy have had little effect to date. By 1985 Australia's share of world trade had fallen to 1.2 per cent, and Australia was the only country in the top ten OECD nations whose ratio of exports to GDP had declined since 1975 (Australian Manufacturing Council, 1986, p. 5). More importantly, Australia's export performance has been decidedly worse than its trading partners of the Pacific region since the mid-1970s.

In 1974, the Labor government's commitment to reduced protection appeared to weaken as the industrial lobby pressured the government into establishing import quotas for a number of industries. Later that year, after fifty-two years of operation, the Tariff Board (traditionally sympathetic to the protectionist lobby) was replaced by the generally anti-protectionist Industries Assistance Commission (IAC). A second round of widespread tariff reductions was undertaken in 1977 following the devaluation of the Australian dollar and a series of multilateral trade negotiations. The devaluation of the dollar continued throughout the 1970s and in 1983 the decision was taken by the newly elected Labor government to float the dollar on the foreign exchange market. By 1986 the value of Australia's currency had fallen markedly against the currencies of its trading partners, especially Japan and the United States. Between 1975 and 1986 the value of the Australian dollar declined by 39 per cent on a trade weighted basis (Figure 3.2).

Although devaluation greatly increased the international price competitiveness of some locally-produced products, evidence suggests that for many of the producers continuing to sell only in the domestic market, the effect of the dollar's devaluation has simply been to increase the price of imported materials, rendering the enterprise even less competitive against overseas producers (Johns, 1986). In a study of enterprise behaviour, in response to the dollar's devaluation, the Bureau of Industry Economics notes that most local producers were unwilling to switch from overseas to local suppliers as managers believed that local material prices would eventually increase in line with materials from overseas (Bureau of Industry Economics, 1985).

**Figure 3.2: Australian Exchange Rate (index 1975=100)**



Source: Reserve Bank of Australia, Treasury Round Up, July 1986

Moreover, the report suggests that many overseas producers, in an attempt to maintain their share of the Australian market, reduced their profit margins in order to absorb part of the price increases brought about by devaluation.

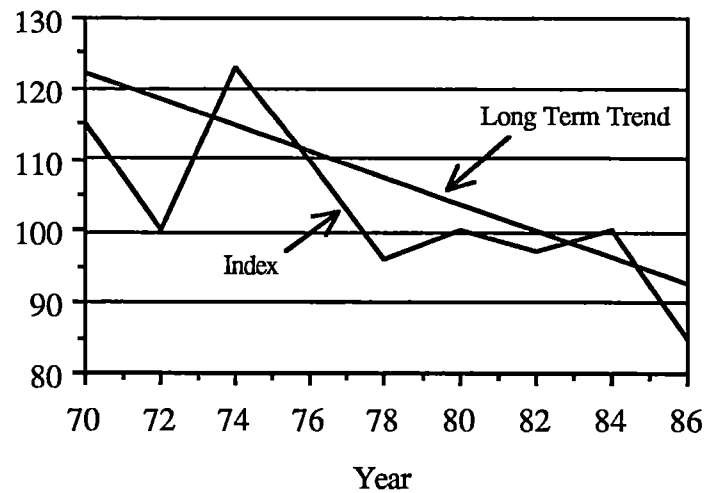
The increasing cost of overseas-based goods and services, combined with static or falling export prices for many of Australia's agricultural and mineral products, have resulted in a steady decline in Australia's terms of trade (the ratio of export prices to import prices) since 1970 (Figure 3.3). The terms of trade index fell over 30 per cent between 1974 and 1986, reflecting Australia's dependence upon rural-based industries which continue to represent the largest share (over 65 per cent) of the nation's export trade income (ABS data). Australia's balance of trade, generally positive throughout the period of post-war industrialisation up to 1972, has also deteriorated since the mid-1970s. Notwithstanding declining prices for export commodities, the volume of Australia's rural exports remained static between 1979 and 1982 due to severe drought conditions. Over the same period the nation's imports increased by over 43 per cent.

In 1986 Australia recorded its lowest ever balance of trade figure of -\$3.36 billion. Australia's poor trade performance, and exchange losses incurred on debt repayments to foreign enterprise, also affected the rising current account deficit from the early 1970s (Figure 3.4). Australia's gross foreign debt increased from \$13.9 billion (11.9 per cent of



GDP) in 1980 to \$68.5 billion (33.1 per cent of GDP) in 1985, representing a 393 per cent increase over the five year period.

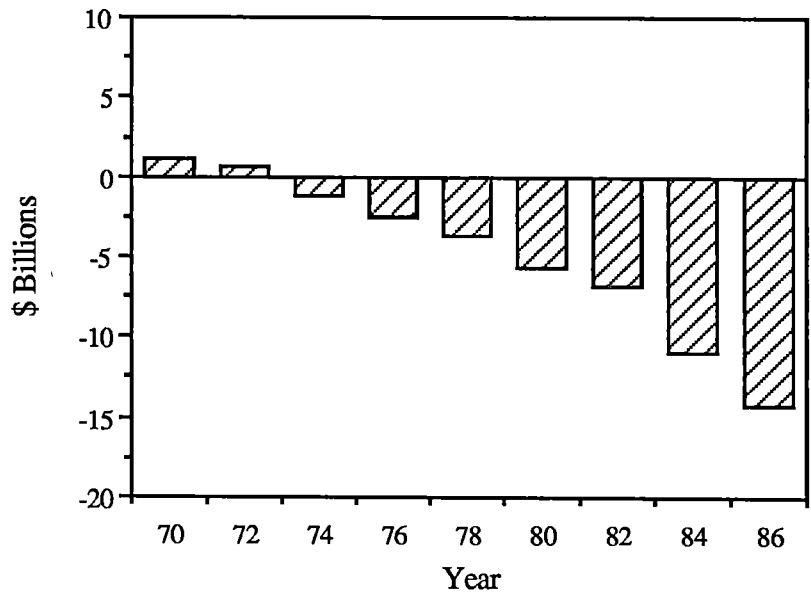
**Figure 3.3: Australia's Terms of Trade (index 1980 = 100)**



Source: ABS, Balance of Payments, Cat. No. 5303.0

It is estimated that 20 per cent of the 1985 debt figure was attributable to the cumulative effects of foreign exchange losses (Australian Manufacturing Council, 1986, p. 9).

**Figure 3.4: Australia's Current Account Balance**



Source: ABS, Balance of Payments Australia, Cat. No. 5303.0

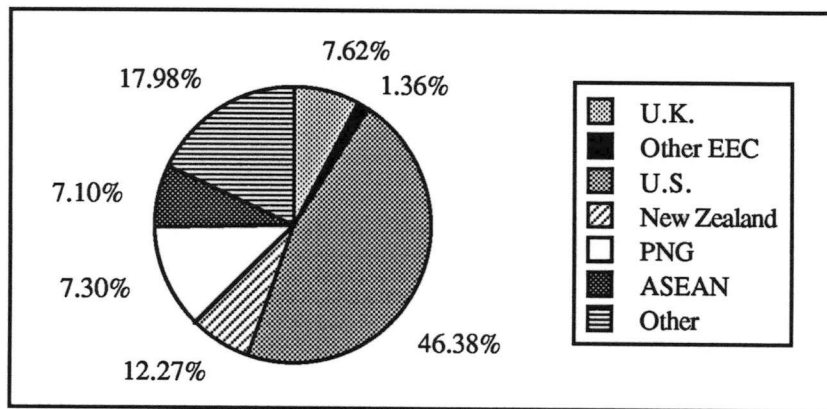
By 1985 Australia's poor trade performance, rising foreign debt and the continued fall in the value of the dollar virtually forced the federal Labor government to adopt a more restrictive monetary policy to reduce the level of domestic spending. In its decision to support the dollar, the government reacted by increasing interest rates during the second half of 1985 (Corden, 1986). Higher interest rates have since reduced the level of private investment. However, the foreign exchange market appears to place little confidence in the ability of the Australian government to confront other important issues such as wage restraint (Matthews and Valentine, 1986). Although the fall in the dollar has eased slightly, Australia's overseas credit rating has been reduced.

Neo-Marxist interpretations of the current restructuring crisis in Australia focus upon the disruption of profitable accumulation within the monopoly submode of capitalist production. High tariff barriers and import substitution policies common to many industrialised countries after 1945 limited the scope for continued expansion among transnational subsidiaries. Declining rates of profit experienced within markets such as Australia during the 1970s were brought about by factors including rising labour and energy costs, a decline in population growth associated with the tightening of immigration policies, and increased competition among major producers within the domestic market. The resulting crisis in monopoly capital has generated new combinations of investment and production strategies designed to reestablish the conditions of profitable accumulation.

In Australia these strategies have taken numerous directions. The response by several large indigenous corporations such as BHP and CSR has been to divert investment out of production capital to other areas including mining and energy projects (Rich, 1987). Another response has been an increase in direct and portfolio investment overseas by indigenous capital, partly encouraged by the relaxation of federal policies toward Australian investment abroad. In 1979 the Fraser Liberal-National Party coalition declared that earnings from Australian foreign direct investment were allowed to be retained overseas for reinvestment in working capital and for committed future expansions without specific prior exchange control authority. One year later controls on portfolio investment overseas by Australians were also relaxed, increasing the annual limits to

\$40,000 for individuals, \$250,000 for private companies and \$2.5 million for public companies and institutions (ABS, 1985). By 1984 Australian equity investment abroad totalled \$A3,465 million. The largest share of this investment was undertaken in the United States (46 per cent) and countries of the west Pacific (27 per cent), while nations of the EEC accounted for less than nine per cent (Figure 3.5).

**Figure 3.5: Australian Equity Investment in Enterprises Abroad, 1984**



Source: ABS, Foreign Investment in Australia, 1983-84

Note: Based upon the paid-up value of corporate equities

Although Australian investment overseas has increased substantially since the mid-1970s, it clearly reflects the motivation and strategies of individual corporations to maintain or increase profits, rather than the cooperative effort of Australian capitalists acting in the interest of national development.

The strategies of foreign capital in Australia, in response to declining rates of profit, have also varied considerably. During the period of rapid industrialisation, flows of foreign capital into Australia were largely in the form of direct investment, which accounted for more than 90 per cent of all foreign investment between 1945 and 1960. This share had gradually fallen to 70 per cent by 1970, but it was not until the late 1970s that annual flows of direct investment declined in real terms while portfolio investment began to increase markedly. By 1984 portfolio investment accounted for 77 per cent of all foreign investment into Australia (ABS, 1985). Direct investment into Australian manufacturing declined as transnationals pursued a number of strategies, the most visible being direct investment in some low-wage nations of the west Pacific and the

establishment of the global submode of production in which Australian-based capital plays a minor role in terms of global strategies and the creation of surplus-value. Many transnational subsidiaries in Australia have since received lower rates of foreign-based development capital from their overseas parent company, or have been closed entirely (Hamilton, 1980). Direct investment into Australian mining has fallen even more dramatically, with several major projects in control of transnationals having been purchased by Australian enterprises over the past decade.

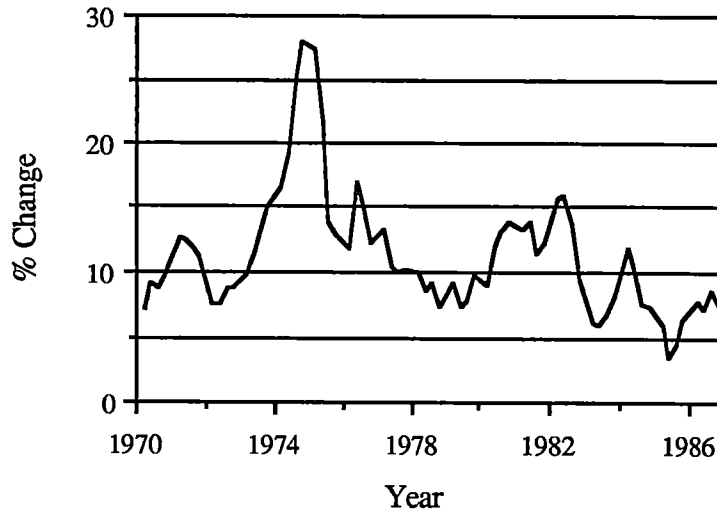
The substantial increase in portfolio investment in Australia has included the purchase of public share issues and real estate, as well as overseas borrowings undertaken by Australian-based enterprise. Of these, overseas borrowings have been the most significant, accounting for 92 per cent of annual portfolio investment into Australia by 1984 (ABS, 1985). The increase in foreign borrowings has been encouraged by the deregulation of Australia's financial market since 1980, allowing the entry of foreign banks, raising the number of foreign exchange dealers, and increasing state government access to foreign securities markets. In addition, Australian corporate tax regulations have encouraged debt over equity-based financing of new investment (Australian Manufacturing Council, 1986). While the return to equity is subject to tax, interest payments on corporate debt are tax deductible. Both indigenous and foreign-owned manufacturing capital have increased their level of overseas borrowing, placing a greater share of their equity in the hands of foreign banks and exposing themselves to fluctuating foreign exchange rates. The shift to debt-based financing has meant that, for some firms, profits have to some extent been offset by foreign exchange losses on debt repayments. For example, the Australian aluminium producer, Comalco Ltd, recorded an equity-accounted loss of \$A69.13 million in 1985, largely associated with a provision of \$A71.1 million for exchange losses (The Australian, 1 March 1986). Over 90 per cent of the group's one billion dollars in borrowings were in US dollars, the value of which had appreciated by almost 40 per cent since 1983.

### The Position of Australian Labour

Several researchers have suggested that wage costs and the increasing power of labour unions are largely to blame for the crisis in Australian capital since 1970 (Morgan, 1986). While many authors have perhaps over-emphasised the importance of increasing labour power, there is little doubt that developments in Australian industrial relations since 1970 have, to some degree, had a negative effect on labour productivity and the profitability of capital. Australian industrial relations are based upon a system of centralised wage fixation where award wages are primarily determined at the federal level by the Conciliation and Arbitration Commission. Wage increases granted by the Commission tend to flow-on quickly from one industry to another and, since the introduction of minimum wage legislation in 1966, Australian workers in traditionally low-wage occupations have typically received higher award rates relative to employees occupying comparable positions in other industrialised countries (Lewis, 1986). Under the centralised wage system most decisions are made on an industry-wide basis, providing little flexibility for variation in applying the award between individual enterprises or regions. The rigidity of the wage fixing system discourages other forms of management-labour cooperation (such as joint decision making or profit sharing) at the enterprise level. Each state also maintains its own wages board which serves as a wage-fixing Authority for employees not covered by federal or Public Service Board awards. In general, however, federal wage decisions flow on to the state jurisdictions and wage rates vary little between the states.

The most dramatic increase in wage costs in the post-war period occurred between 1972 and 1975. Under the Whitlam Labor government, equal pay legislation was introduced, major wage gains were granted across all industry sectors and additional bonuses such as an annual leave loading were introduced. Between March 1972 and December 1975, average weekly earnings for male employees increased by 96 per cent while the average minimum real cost of female labour increased by over 40 per cent (Snape, 1977, p. 85). The increase in weekly earnings for all employees averaged 18 per cent per annum over the three year period (Figure 3.6).

**Figure 3.6: Australian Average Weekly Earnings, Annual Percentage Change<sup>1</sup>**



Source: ABS, Average Weekly Earnings, States and Australia, Cat. No. 6302.0

<sup>1</sup> Based upon quarterly figures.

Between 1975 and 1983 annual increases in average weekly earnings eased, but remained at levels higher than those experienced prior to 1970. In 1983 the Hawke Labor government, trade unions and business organisations drafted new wage legislation which provided for wage increases every six months in line with the inflation rate. Under this 'Accord' Australia's unemployment rate fell from 10.3 per cent in September 1983 to less than 8 per cent in 1986, and percentage wage increases continued to decline through 1985. Notwithstanding, capital's commitment to the Accord lessened dramatically after 1983 and by 1987 the federal government announced that it would once again consider substantial changes to the industrial wage system. Although the Accord provided a short-term solution to the problem of escalating wage increases, labour costs remain high relative to most of Australia's trading partners, particularly those in the OECD. Since the mid-1970s total wages as a percentage of GDP have remained above 50 per cent. In addition to the relatively high award wages, labour on-costs such as leave payments, payroll tax, superannuation and employee benefits represent a considerable share of the total wages paid to labour (Table 3.1).

**Table 3.1: Australian Labour On-Costs, 1986**

	Percentage of Total Direct Wage Payments	
<b>Leave Payments</b>		
Annual Leave	7.1	
Annual Leave Loading	1.2	
Long Service Leave	1.1	
Sick Leave	1.8	
Other Leave Taken	0.3	
Public Holidays	3.7	15.2
<b>Additional On-Costs</b>		
Payroll Tax	6.5	
Workers Compensation	3.8	
Superannuation	6.2	
Other	0.5	17.0
<b>Benefits Provided and Paid Breaks</b>		
Employee Benefits	4.9	
Paid Breaks	5.5	10.4
<b>Total On-Costs</b>		<b>42.6</b>

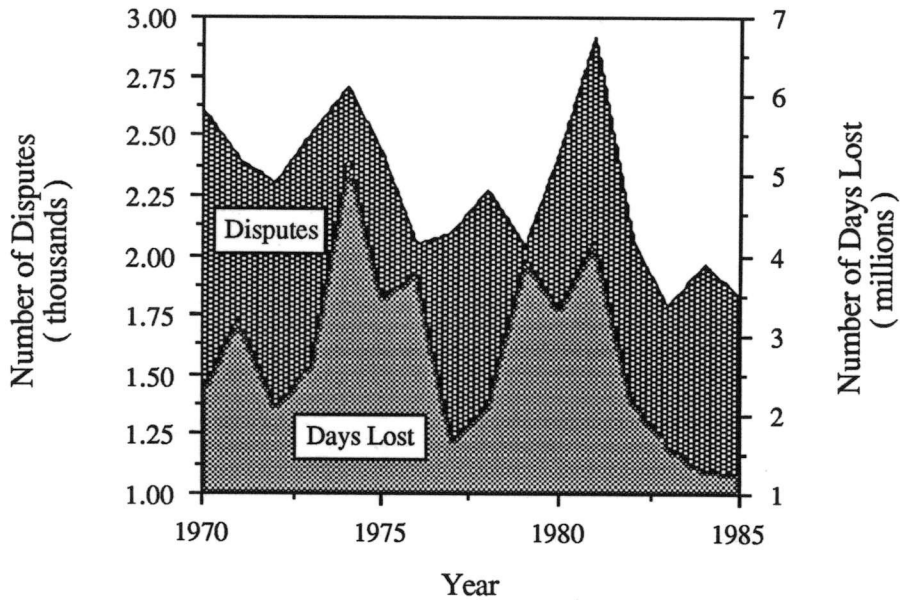
Source: Confederation of Australian Industries, Survey of Employer On-Costs, 1986

Although the impact of labour on-costs varies in each state, the average national figure of 42.6 per cent shown in Table 3.1 is conservative compared to other estimates which suggest that on-costs represent over 50 per cent of total wage payments (Rich, 1987).

Union participation has also continued to rise since 1974, with over 57 per cent of all employees belonging to unions in 1986. The Australian trade union movement is unique among industrialised nations, in that it is still characterised by a large number of unions. In 1986 there were 323 unions, 61 per cent of which had less than 2,000 members. Many of the smaller unions are craft-based and have been criticised for their tendency to resist the adoption of new technologies and work practices (Ewer, et al 1987). Most industries contain several unions, and demarcation disputes involving only a few key workers have often disrupted the entire operation of large business organisations. Although the number of working days lost through industrial disputes varies from state to state, the international reputation of Australian industrial relations is generally poor, adversely affecting the competitiveness of Australian enterprises which regularly tender for overseas sales

contracts. However, since 1970 both the number of disputes and number of working days lost have tended to decline (Figure 3.7).

**Figure 3.7: Industrial Disputes and Number of Days Lost: Australia**



Source: ABS, Labour Statistics Australia, 1985, Cat. No. 6101.0

The average duration of strikes has also declined due to improvements in the process of mediation between capital, labour and state authorities. In general, however, labour power has increased markedly since 1974 as the value of wage and benefit gains has far outpaced rises in the Consumer Price Index, and the number of working hours has been reduced. In 1986 the average hours worked per week in manufacturing had declined to 37.7, well below the average for most other industrialised countries (ABS data).

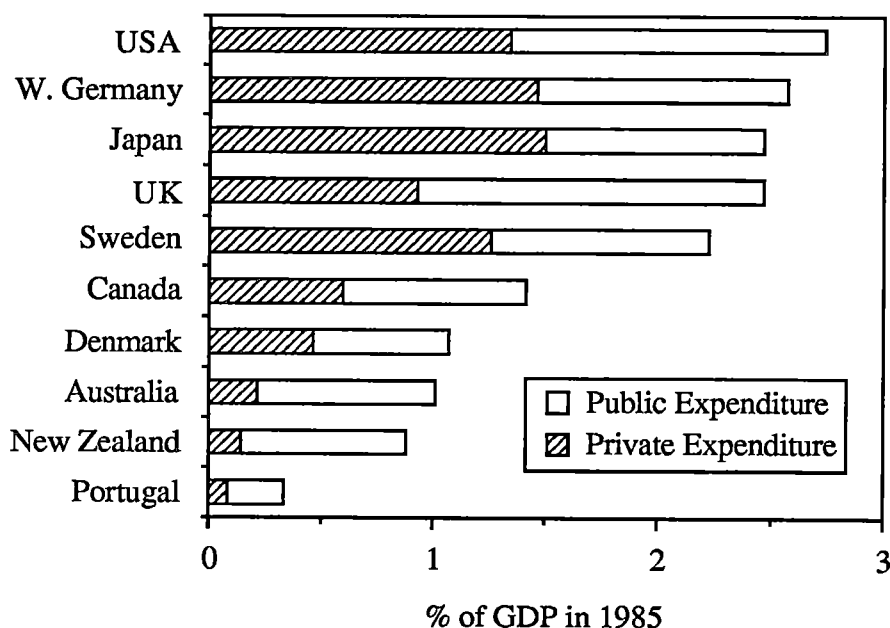
### Research and Development

The importance of innovation and the quality of Australian research and development has generated considerable attention in recent years. The degree to which Australian enterprise can successfully compete in overseas markets, and against foreign producers in the domestic market, depends on its ability to develop new products and processes and to alter existing products to satisfy better customer requirements. The debate surrounding



Australian R&D centres upon two main concerns. First, the aggregate level of R&D spending is significantly lower than in most other industrialised nations (Figure 3.8).

**Figure 3.8: Gross Expenditure on R&D as a Percentage of GDP: Selected Industrialised Countries**



Source: Nevile (1985)

Gross Australian expenditure on R&D in 1985 represented only 1.01 per cent of GDP. Only 20 per cent of this expenditure was undertaken by private enterprise, over one-third of which was foreign owned (ABS, 1985, 5330). Public sector R&D is concentrated in mining and agriculture, and developments spread relatively quickly to private enterprise. In manufacturing, however, research activity is primarily undertaken by a small number of large organisations acting on behalf of their individual profit motives. In 1985, less than four per cent of manufactured exports were of R&D intensive products (Nevile, 1985). In total, less than five per cent of manufacturing enterprises are engaged in formal R&D programs (Johns, *et al*, 1983).

Second, although the level of successful innovation among Australian enterprises engaged in R&D is impressive, the percentage of innovations which is developed into marketable products within Australia is very low. The success of R&D not only depends upon the ability to innovate, but also upon a knowledge of the marketplace and customer

needs, and the availability of development capital. Many innovations have been conceived in Australia only to be developed and marketed by organisations located overseas. One reason for this has been that Australian governments have traditionally done very little to create an environment within which private enterprise would be encouraged to commit long-term financing for R&D projects. For example, the government's failure in the 1970s to develop a long-term strategy regarding tariff reductions provided little incentive for manufacturers to direct funds into research activities, particularly when the planning horizons for some manufacturers may be ten years or more (Laver, 1986).

However, in 1986 the federal government introduced new measures to encourage private sector research spending where enterprises are granted a 150 per cent tax concession on all R&D expenditure. Additionally, discretionary grants were specifically made available to small companies requiring venture capital for research projects. The new legislation is particularly encouraging as it reduces the federal government's bias toward support for large enterprise and covers additional expenditure associated with service activities and market development. In addition to discretionary grants available under the federal Labor government's R&D incentive scheme, venture capital is provided through the Management and Investment Companies (MIC) Program. Established in 1984, the MIC program is designed to promote the development of a private sector venture capital market in Australia, and to encourage the provision of management skills and equity finance to young, innovative, fast-growing enterprises (Management and Investment Companies Licensing Board, 1987, p.2). By 1986, the Management and Investment Companies Licensing Board had granted licenses to eleven enterprises, enabling them to act as management investment companies. In 1986, these companies invested over \$35 million in various innovative enterprises throughout Australia.

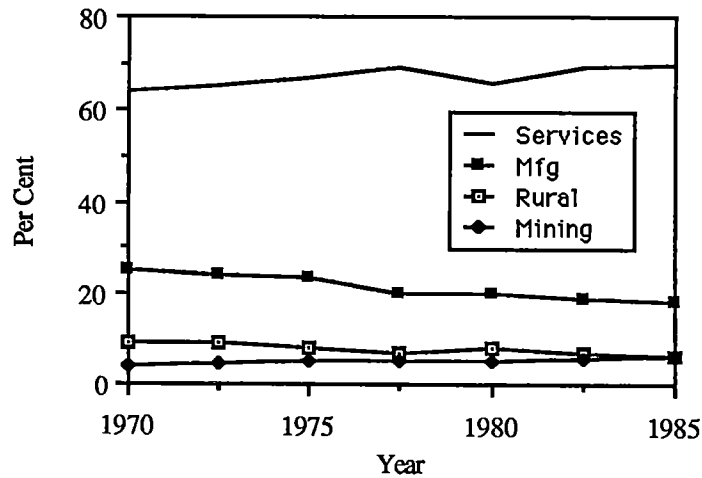
Although successful innovation is vital if Australian manufacturers are to compete in external markets, the true benefits of R&D can only be measured in relation to the overall position of Australian enterprise at the political economy level. For instance, the fact that Australia's mining and agricultural sectors are in some respects world leaders in terms of utilising new technologies provides little encouragement when viewed against the

protectionist policies of foreign governments and subsidising of foreign producers which have often overshadowed the comparative price advantage of Australia's rural exports.

### The Performance of Manufacturing

Since 1970 the difficulties experienced within Australia's manufacturing sector have both contributed to, and have been a reflection of, the overall decline in the national economy. Manufacturing has become less important in terms of its contribution to GDP and total employment. Between 1970 and 1985 manufacturing's share of GDP fell from 22 to 19 per cent, while at the same time the share represented by the service sector increased from 64 to 71 per cent (Figure 3.9).

**Figure 3.9: Sectoral Contribution to Australian GDP, 1970-1985**



Source: ABS National Accounts, Cat. No. 5211.0

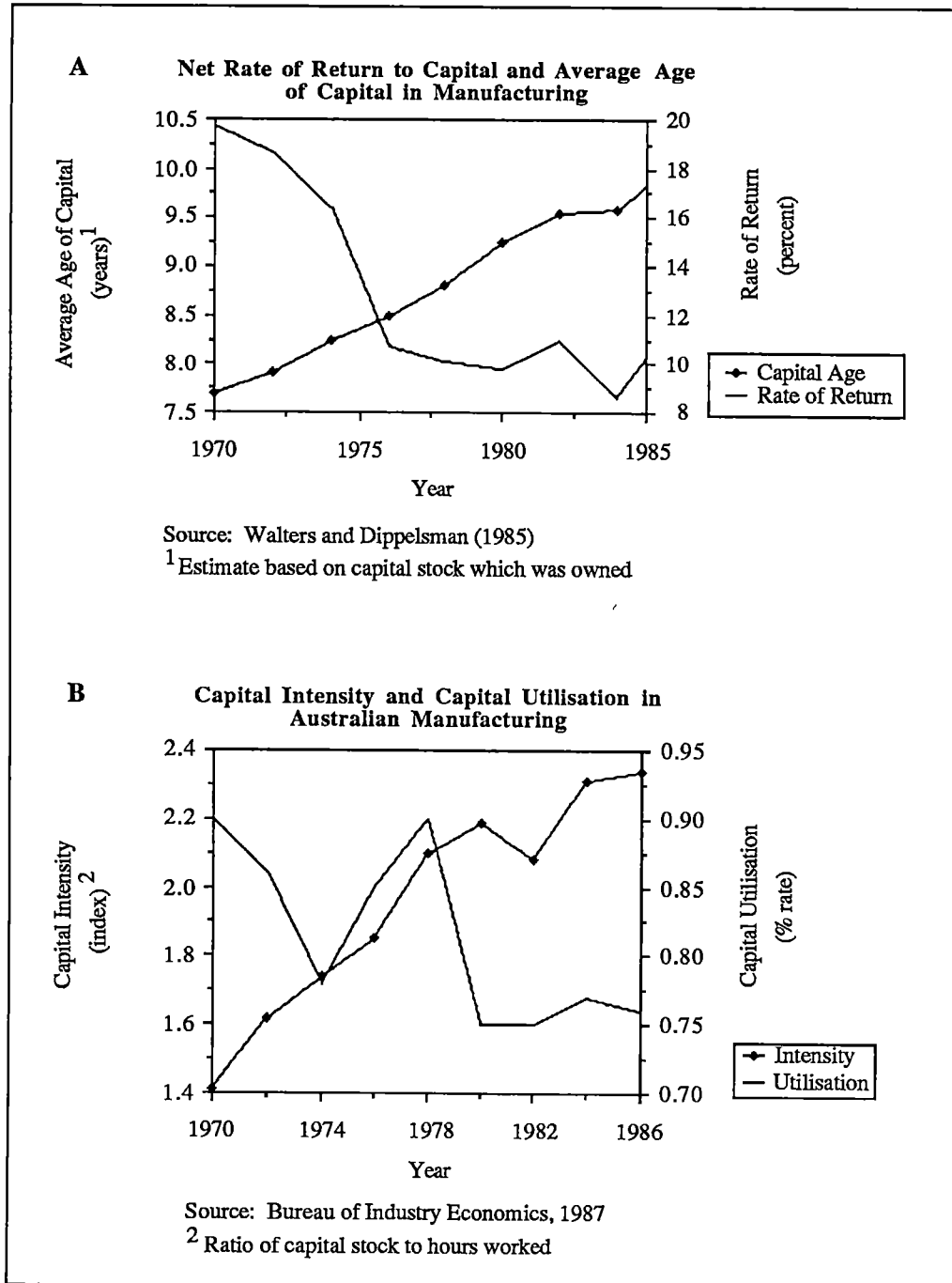
After reaching its peak in 1974, manufacturing employment declined by 21 per cent over the next decade. By 1985 manufacturing employed only 17 per cent of the total workforce, compared to 25 per cent in 1970. Research on the nature of restructuring within manufacturing has demonstrated that job loss has not generally been associated with rising levels of productivity (Rich, 1981).

Rather, the declining profitability of capital has led to a major rationalisation of manufacturing industry in its effort to survive within a more static domestic market, and

against an increase in foreign competition. With the comprehensive tariff reductions of 1973 and 1979, the average effective rate of assistance to manufacturing declined from 36 to 23 per cent during the 1970s. Over the same period the percentage of domestic sales taken by manufactured imports rose from 17 to 23 per cent, increasing in eleven of the twelve industry subdivisions (IAC, 1981). Percentage gains by foreign competitors were highest in labour-intensive industries such as clothing and footwear (15.5 per cent), machinery and equipment (12.3 per cent) and textiles (7.5 per cent), in which Australian producers suffered a comparative cost disadvantage. Since 1970 the net rate of return to capital in manufacturing has declined by 48 per cent (Figure 3.10a). Walters and Dippelsman (1985) suggest that the recovery in the returns to funds employed since 1983 has largely been offset by the corresponding increase in interest rates on debt, encouraged by the federal government's macroeconomic policies aimed at supporting the dollar and reducing domestic demand. The erosion of profits and increasing rates of interest have discouraged investment since the early 1970s. The average age of capital in manufacturing has steadily increased, and investment which has been undertaken has focused primarily upon the reduction of labour inputs as a percentage of the overall capital cost structure (Figure 3.10a&b). While production has become more capital intensive, the productivity of Australian labour has risen at a rate which is slower relative to most other OECD nations (OECD, 1987).

Over the past fifteen years the process of restructuring within manufacturing has been highly selective, both spatially and between industrial sectors. The impact of rising labour costs, reduced levels of protection, increasing foreign competition, and falling rates of profit is dependent upon a number of contingently related factors, the combination of which varies over time and space. At a general level, however, it is possible to identify marked differences in the magnitude of restructuring. Comparisons between data from the 1970s and 1980s must be made cautiously due to changes in statistical definitions and the way in which the data is presented by ABS. Most importantly, industry level data since 1975 have separated out, and published independently, information on single-

**Figure 3.10: Components of Change in Australian Production Capital Since 1970**



establishment enterprises employing fewer than four persons. In several recent studies (for example, see Mangan, 1986) authors have (unfortunately) based their analysis of manufacturing change on data which simply exclude information on small single-establishment operations in the years following 1975. Although these small operations employ only a minor share of the total manufacturing workforce their performance since the mid-1970s has differed markedly from the group of larger enterprises (Tables 3.2 & 3.3). Failure to consider differences in performance between the two groups results in an over-estimation of manufacturing decline since 1975.

Between 1975 and 1985 the number of small single-establishment enterprises in Australia increased by 44 per cent (N=4,380) while the number of establishments among larger enterprises fell by nearly 26 per cent (N=-9,533). Additionally, employment increased by 50 per cent (9,929 persons) within the group of smaller enterprises compared to a 24 per cent employment loss (-320,000 persons) among larger enterprises. Over the ten year period, enterprises employing fewer than four persons thus increased their share of total establishments in manufacturing from 20 to 34 per cent, and their share of employment from 1.4 to 2.8 per cent. The aggregate nature of the data only allows for speculation concerning the reasons for the increasing level of activity among small single-establishment enterprises. It appears likely that, in a period of economic decline, more persons have established their own small businesses as an alternative to unemployment. This is supported by the fact that the fastest growth in the number of small enterprises occurred between 1975 and 1980 when employment loss among larger manufacturing enterprises was at its highest, and the number of self-employed persons in Australia increased by 31 per cent (ABS data). The largest absolute gains in employment within small manufacturing enterprises have been in craft-based and light fabrication industries in which small firms are most likely to occupy product and local-market niches not filled by larger concerns.

Within enterprises employing more than four persons, the magnitude of restructuring has varied considerably between industries. Between 1975 and 1985 both the number of establishments and employment declined in each of the twelve industry subdivisions

**Table 3.2 : Number of Establishments and Employment in Australian Manufacturing Enterprises Employing Fewer Than Four Persons, 1975 and 1985**

Industry	Establishments			Employment		
	1975	1985	% Change 1975-85	1975	1985	% Change 1975-85
Food & beverage products	665	823	23.7	1 442	1 927	33.6
Textiles	165	262	58.7	341	551	61.5
Clothing & footwear	432	587	35.8	894	1 249	39.7
Wood, wood products and furniture	2 183	3 400	55.7	4 186	6 852	63.6
Paper, paper products publishing & printing	1 065	1 405	31.9	2 127	2 984	40.5
Chemical, petroleum & coal products	251	237	- 5.5	493	496	-
Non-metallic mineral products	364	543	49.1	719	1 123	56.1
Basic metal products	75	140	86.6	175	303	73.1
Fabricated metal products	1 516	2 427	60.0	3 061	5 005	63.5
Transport equipment	446	782	75.3	874	1 613	84.5
Industrial machinery & equipment	1 398	1 894	35.4	2 773	3 897	40.5
Miscellaneous manufacturing	881	1 743	97.8	1 608	3 494	117.2
<b>Total Manufacturing</b>	<b>9 863</b>	<b>14 243</b>	<b>44.4</b>	<b>19 570</b>	<b>29 499</b>	<b>50.7</b>

Source: ABS, Manufacturing Establishments, Details of Operations By Industry Class, Cat. No. 8203.0.

(Table 3.3). In their examination of manufacturing change between 1970 and 1981 Gibson and Horvath (1983a) imply that at least ten subdivisions could be characterised as either deindustrialising or rationalising, while only one (petroleum products) could be seen as industrialising. Although the rate of decline in manufacturing has eased since 1981 (Rich, 1988), the general conclusions offered by Gibson and Horvath still hold.

Sectors experiencing the most severe difficulties since the mid-1970s are generally those which had received the highest level of protection against foreign competition. These include textiles, clothing and footwear, transport equipment, and consumption goods industries such as electrical equipment and domestic appliances. Between them, these five industries accounted for over one-half of the employment loss in manufacturing between 1975 and 1985, shedding labour at a rate five times faster than groups receiving lower rates of assistance (IAC, 1983; Table 3.3). In particular, the textile and clothing sectors were greatly affected by the 25 per cent tariff reduction of 1973. By 1975 these industries realised a combined job loss of just under 17,000 persons, and by 1983 real fixed capital expenditure in each industry had fallen by over 45 per cent. The percentage of domestic sales taken by imports has risen markedly in both sectors, averaging an increase of 8 per cent per year between 1969 and 1982 (Mangan, 1986). The consumption goods sector experienced similar difficulties following tariff reductions, and since the late 1970s has realised the highest level of import competition of all industry subdivisions (nearly 50 per cent in 1982). Other industries including wood, wood products and furniture, non-metallic mineral products, fabricated metal products and transport equipment have also declined substantially since 1970 in terms of both the number of establishments and employment. Each industry has lost a share of the domestic market to foreign imports, although the loss has not been as dramatic as that experienced by the most highly assisted group. Compared to the most highly assisted group these industries contain a greater degree of intra-industry variation in performance, largely due to the diverse nature of the large and small enterprises which characterise them. This diversity is evident in the way that individual enterprises are both affected by, and respond to, periods of economic crisis.



**Table 3.3: Number of Establishments and Employment in Australian Manufacturing Enterprises Employing Four or More Persons, 1975 and 1985**

Industry	Establishments			Employment		
	1975	1985	% Change 1975-85	1975 ('000)	1985 ('000)	% Change 1975-85
Food & beverage products	4 249	3 387	-20.2	204.17	166.95	-18.2
Textiles	897	656	-26.8	54.61	33.52	-38.6
Clothing & footwear	3 180	2 011	-36.7	109.96	74.50	-32.2
Wood, wood products and furniture	6 038	4 023	-33.3	85.67	72.69	-15.1
Paper, paper products publishing & printing	3 683	2 972	-19.3	108.03	102.09	- 5.4
Chemical, petroleum & coal products	1 169	887	-24.1	67.10	55.09	-17.9
Non-metallic mineral products	1 911	1 711	-10.4	55.45	38.58	-30.4
Basic metal products	642	529	-17.6	98.14	76.66	-21.8
Fabricated metal products	5 434	4 137	-23.8	119.04	93.22	-21.6
Transport equipment	1 608	1 308	-18.6	158.88	119.64	-24.6
Industrial machinery & equipment	5 001	3 778	-24.4	198.97	126.74	-36.2
Miscellaneous manufacturing	3 332	2 212	-33.6	78.37	58.73	-25.0
<b>Total Manufacturing</b>	<b>37 144</b>	<b>27 611</b>	<b>-25.6</b>	<b>1 338.44</b>	<b>1 018.44</b>	<b>-23.9</b>

Source: ABS, Manufacturing Establishments, Details of Operations By Industry Class, Cat. No. 8203.0.

Since 1970 it has clearly been the least assisted industries which have performed better in terms of employment, turnover, investment, and maintaining their share of the domestic market. Employment performance was best within paper, paper products, publishing and printing industries as less than 6,000 jobs (-5.4 per cent) have been lost since 1975 (Table 3.3). Although the number of establishments has fallen by almost 20 per cent the sector has maintained its share (83 per cent) of the domestic market since 1969, despite historically low rates of industry protection. Food, beverage and tobacco industries also performed well relative to other sectors. While employment has declined 18 per cent since 1975, the real value-added per employee has risen by over 50 per cent since 1970 and annual real fixed capital expenditure has consistently been positive. Since 1970 the percentage of the food and beverage market taken by foreign producers has risen only from 4.8 to 7.8 per cent. Notwithstanding major employment losses within the steel industry, the basic metals sector has also performed better than several other sectors. Real investment throughout the 1970s was higher than in any other industry. In 1985 the sector controlled over 90 per cent of the domestic market, and exports as a percentage of turnover stood at 36 per cent, well above the manufacturing average of 13.8 per cent (ABS data).

Along with the substantial differences in inter-sectoral performance, the restructuring of manufacturing industry since 1970 has also taken a number of distinct spatial forms. One of the most visible has been the decline in the concentration of manufacturing activity in New South Wales and Victoria. In 1970 enterprises within the two states controlled 75 per cent of national manufacturing employment and generated 75 per cent of total turnover (Table 3.4). By 1985 both of these figures had fallen to 71 per cent. Between the two states employment losses in manufacturing totalled almost 248,000 persons, representing 89 per cent of the national decline over the period. Victorian manufacturers performed substantially better as employment decreased 20 per cent compared to 30 per cent in New South Wales. Rich (1981) demonstrates that the reasons for the varied performance between the two states are highly complex, and that explanations of change must consider the historical context of corporate strategies toward restructuring. For example, in

Table 3.4: State Contribution to Employment and Value Added in Australian Manufacturing, 1970 and 1985

State	1970			1985 <sup>1</sup>			1970-1985		
	<u>Employment</u>		<u>Value Added</u>	<u>Employment</u>		<u>Value Added</u>	<u>Employment</u>	<u>Value Added</u>	
	No.	% of Total	% of Total	No.	% of Total	% of Total	Absolute Change	% Change	% Change
New South Wales	523,743	40.3	40.9	364,805	35.8	36.6	-158,938	-30.4	-10.5
Victoria	445,705	34.3	33.6	356,687	35.0	34.2	- 89,018	-19.9	1.7
Queensland	110,515	8.5	8.6	109,940	10.7	11.4	- 575	- 0.5	32.5
South Australia	118,416	9.1	8.6	92,205	9.0	8.0	- 26,211	-22.1	- 6.9
Western Australia	62,597	4.8	5.0	64,242	6.3	6.5	1 645	2.6	30.0
Tasmania	31,760	2.4	2.7	24,494	2.4	2.4	- 7,266	-22.8	-11.1
Northern Territory /ACT	3,904	0.3	0.6	6,075	0.5	0.9	2,171	55.6	50.0
Total Australia	1,296,640	100.0	100.0	1,018,448	100.0	100.0	-278,192	-21.4	12.2

Source: ABS, Manufacturing Establishments, Details of Operations By Industry Class, Cat. No. 8203.0.

<sup>1</sup> 1985 figures exclude single establishment enterprises employing fewer than four persons.

response to economic crises since 1974, several large corporations have adopted a strategy of rationalisation and centralisation of production facilities. As Rich (1981) demonstrates, such strategies have tended to benefit Victoria, as a number of corporations have transferred a portion of their production facilities from New South Wales to Victoria.

Outside of the two largest states, South Australia suffered the most severe employment loss (over 26,000 jobs), largely related to its narrow industrial-base in which enterprises producing consumer durables (formerly dependent upon tariff protection) employ a disproportionate share of the total workforce. While Tasmanian employment declined, the state maintained its share (2.4 per cent) of national manufacturing employment. Queensland, Western Australia, the Northern Territory, and the Australian Capital Territory all marginally increased their relative share of both national employment and value-added. Manufacturing employment loss within all states has been highest in the respective capital cities, reflecting the general trend toward decentralisation at the intra-state level (Wadley and Rich, 1983).

#### The State as an Agent in Industrial Restructuring

In contrast to the state's fragmented and contradictory industrial policies of the 1970s, the federal government has taken a much more assertive role in the process of restructuring since 1980. Rather than undertaking a series of short-term reductions in protection, the state has introduced several longer-term policies within which capital is encouraged to become more efficient, and competitive in both the domestic and export markets. Specific industry programs have targeted the steel, heavy engineering, textiles, clothing and footwear, and motor vehicles industries. In each case the federal government has committed itself to a program of between four and seven years in which industry protection is gradually reduced and government funds are employed to assist in the restructuring of production capital. Within each program the rate of decline in industry protection is tailored to either the restructuring requirements of individual product lines or the current performance of the industry in terms of production, value-added and its share of the domestic market.

Of all the industry programs currently in progress, the Motor Vehicle Plan has represented the most determined attempt by the state to involve itself in the process of capital restructuring. The seven year plan, which commenced in January 1985, is designed to reduce the number of car companies in Australia from five to three, and the number of basic production models from thirteen to six (The Australian, 30 May 1984). Administered by the Automotive Industry Authority, the plan will phase out quota restrictions on imported cars, and provide support for increased export activity. Since the Plan was introduced, export incentives have facilitated the import and export of motor vehicle componentry, allowing Australian-based manufacturers to become more integrated into the global submode of production. By the end of 1986 Australian exports of brake and drivetrain components to the US had increased by 21 percent to \$463 million. Although the number of producers remains at five, manufacturers have begun to pool their capital resources. In December 1987 Holden and Toyota announced plans to merge their Australian production operations. The most visible means of state support has been the commitment of \$150 million in funds toward automotive research and design to be undertaken by private enterprise. The decision to grant such a vast amount of funding to locally-based capital is questionable given that each company is linked to its parent company's research and design facilities overseas. Although the final outcome of the government's Motor Vehicle Plan is yet to be seen, the policy itself is unique in that the state virtually dictated to capital the conditions under which it would develop.

Quite clearly, Australia's current industrial structure reflects a history of investment decisions, informed by local conditions and opportunities on the one hand, and by changes taking place within the global capitalist system on the other. Between 1945 and the late 1960s, Australia's manufacturing sector grew rapidly as both local and foreign capital developed to sell within the expanding domestic market. Within a trading environment protected from foreign competition, the domestic economy flourished and the standard of living increased markedly. Since 1970, the performance of the Australian economy, and the manufacturing sector in particular, deteriorated greatly as the system of protection, and the structure of development it encouraged, were unable to cope with the

pressures of an increasingly competitive global economy. Notwithstanding the success of a few large indigenous enterprises, attempts by the federal government to integrate Australia into the global economy have largely been unsuccessful to date, and it appears unlikely that Australia will improve substantially its global economic position in the future.

Having established the conditions of crisis within Australian-based production capital, and some of the central state-capital relations which have influenced the subsequent nature of restructuring, the remaining sections of the chapter summarise Tasmania's position within the Australian space economy, and outline the development and current structure of the state's manufacturing sector.

### **3.2 TASMANIA WITHIN THE AUSTRALIAN ECONOMY**

In relation to the Australian economy, Tasmania has often been described as occupying a peripheral position to the industrial core of New South Wales and Victoria (Mullins, 1980; Taylor and Thrift, 1981b; Wilde, 1981a; Lohrey and Goldin, 1983; Hanson, 1985; Hanson and Wilde, 1986, 1988). Relative to these states, Tasmania's economy is constrained by a small dispersed local market, and is dependent upon a narrowly-based industrial structure in which resource-based industries employ a major share of the state's workforce. The current structure of Tasmania's economy, and the problems associated with it, reflect the history of Australian economic development in which Tasmania has always played a minor role.

Since 1974 and the onset of the long-term world recession, changes taking place within the Tasmanian economy have largely reflected those occurring at the national and international levels. Employment in service industries has increased, manufacturing has declined in importance, and the overall rate of growth in trade and investment has fallen well below levels achieved during the 1960s. Tasmania's narrowly-based industrial structure, dependent upon resource-based activities, tended to exacerbate the process of economic instability. In order to understand more fully the factors influencing Tasmania's economy, and to provide policy advice to federal and state governments, numerous studies

have been commissioned and economic forums have taken place since the mid-1970s (Nimmo, 1976; Callaghan, 1977; Joy Committee, 1977; ANZAAS, 1982; Lohrey and Goldin, 1983; Jensen *et al.*, 1984; Wilde, 1984; Hood and Wilde, 1986). Efforts have focused upon Tasmania's employment and occupational structure, the extent and implications of non-local ownership, the state's transport system, problems arising from Tasmania's decentralised population, and opportunities for future economic development. The following paragraphs briefly summarise several of these issues in relation to the performance of the state's economy since the mid-1970s.

### **3.2.1 Employment Change Since the mid-1970s**

A comparison of Tasmanian and Australian employment change by industry between 1976 and 1985 highlights the problems associated with Tasmania's narrow industrial structure (Table 3.5). The base year of 1976 is chosen since ABS industry-level data prior to that date is not comparable with later series. In particular, the industry composition of the categories published for service employment were changed in 1976. Between 1976 and 1985, employment data demonstrate that Tasmania's manufacturing, mining, and construction industries performed worse than the national average on a percentage change basis. Tasmanian manufacturing declined by 21.7 per cent (6,900 persons) compared to the national decline of only 14.5 per cent. Over the period, the most severe losses within the state's manufacturing sector occurred prior to 1980. Moreover, between 1973 and 1976, manufacturing declined by 3,700 persons (-12 per cent), primarily reflecting the employment shed within the state's textile industries following the 25 per cent tariff reduction in 1973.

Significant job loss also occurred within Tasmania's mining sector, influenced by its continued dependence upon only a few metallic minerals, the decreasing ore quality of most mines, and development of few new ore bodies. Mining employment within the state between 1976 and 1985 fell by over 1,000 persons (-23.3 per cent), yet increased more than 17 per cent nationally. The majority of turnover within Tasmania's mining industry is derived from five metallic minerals (zinc, copper, tin, lead, and iron). With the

**Table 3.5: Employment by Industry, Tasmania and Australia, 1976 and 1985**

Industry	Employment								Employment Change			
	Tasmania				Australia				Tasmania		Australia	
	1976		1985		1976		1985		1976-85		1976-85	
	No. ('000)	%	No. ('000)	%	No. ('000)	%	No. ('000)	%	No. ('000)	%	No. ('000)	%
Manufacturing	31.7	18.8	24.8	14.0	1,330.2	21.6	1,137.0	17.3	- 6.9	-21.7	-193.2	-14.5
Mining	4.3	2.5	3.3	1.9	79.5	1.3	93.7	1.4	- 1.0	-23.3	14.2	17.8
Construction	16.5	9.8	13.1	7.4	511.9	8.3	485.1	7.3	- 3.4	-20.6	-26.8	- 5.2
Rural <sup>1</sup>	13.8	8.3	15.5	8.5	393.7	6.4	393.7	5.9	1.7	12.3	-	-
Services	102.5	60.6	120.7	68.2	3,844.1	62.4	4,522.9	68.1	18.2	17.7	678.8	17.6
Distributive Trades	29.7	17.6	32.6	18.4	1,233.9	20.0	1,318.5	19.9	2.9	9.8	84.6	6.8
Property, Finance and Business Services	9.7	5.7	12.5	7.1	472.2	7.6	652.2	9.8	2.8	28.8	180.0	38.2
Community Services	25.3	15.0	36.0	20.3	896.6	14.5	1,140.9	17.2	10.7	42.3	244.3	27.2
Recreation	12.9	7.6	11.7	6.6	396.7	6.6	441.8	6.6	- 1.2	- 9.3	45.1	11.3
Other Services <sup>2</sup>	24.9	14.7	27.9	15.8	844.7	13.7	969.5	14.6	3.0	12.0	124.8	14.8
Total Employment	168.8	100	177.3	100	6,159.4	100	6,632.3	100	8.5	5.0	472.9	7.7

<sup>1</sup> Includes agriculture, fishing and hunting.

<sup>2</sup> Includes electricity, gas and water; transport and storage; communications; public administration and defence

Source: Australian Bureau of Statistics, Labour Force Surveys



exception of zinc which is sent primarily to EZ Industries' smelter in Hobart, most of Tasmania's metallic mineral concentrates are sold in volatile overseas markets. In particular, world prices for tin and copper have been subject to large fluctuations since 1974. In 1986, depressed export prices and declining ore quality forced Aberfoyle Ltd to close down its Cleveland tin mining operation at Luina, in western Tasmania. After nearly closing down in 1977, Tasmania's only copper mining enterprise, The Mt. Lyell Mining and Railway Company Ltd, announced in 1985 that it would cease operations at its Queenstown mine by 1989. Employing over 1,600 persons during the late 1960s, Mt. Lyell had decreased its workforce to 470 by 1986. In order to keep Mt. Lyell operating until 1989, the state government and the HEC combined forces in 1985 to inject over \$10 million into the mine. Mt. Lyell's parent company, Renison Goldfields Consolidated Ltd, subsequently decided to invest a further \$18 million to extend the life of the mine until 1994. Other recently announced investments have also provided some relief to Tasmania's depressed mining industry. These include Aberfoyle's \$6 million development of the Hellyer silver, lead, zinc, and gold deposit south of Burnie, and an \$8.5 million rehabilitation of the gold mine at Beaconsfield, north west of Launceston.

Tasmania's rural sector increased marginally both in terms of the number of new jobs provided (1,700) and its percentage contribution to total state employment (Table 3.5). Conversely, on a national basis, Australia's rural sector maintained the number of persons employed although the sector as a whole declined in terms of its relative contribution to the total workforce. Although both Tasmanian and Australian service sector employment increased by over 17.5 per cent, and employed over 68 per cent of the workforce by 1985, the composition of change within the sector demonstrates that Tasmania has not kept pace with the national growth of white collar employment. In particular, the largest employment gain within the Tasmanian service sector was in community services (42.3 per cent), whereas the greatest employment increase nationally was in property, finance, and business service activities. Research by Wilde (1980, 1984) has highlighted Tasmania's dependence upon the public sector for employment growth (particularly for males) during the 1970s. Between 1971 and 1981, male employment

within the private sector fell by 1,190 jobs while in the public sector male employment increased by over 4,000 jobs (Wilde, 1984).

Although total employment in Tasmania increased by more than 8,500 persons between 1976 and 1985, the rate of employment growth (5 per cent) was far less than the national rate of 7.7 per cent. In fact, since the 1960s, Tasmania's rate of employment growth has been consistently lower than the national average (Table 3.6). As a consequence, Tasmania's share of the national workforce has declined and the state's unemployment rate has typically been among the highest in Australia.

**Table 3.6: Employed Persons, Tasmania and Australia, 1966-1986**

Year	Employed Persons		Employment Change		Tasmania's Share of Total
	Tasmania ( <sup>000</sup> )	Australia ( <sup>000</sup> )	Tasmania %	Australia %	Employment %
1961	126.82	4,052.49	8.86	11.12	3.13
1966	145.20	4,778.76	14.49	17.92	3.04
1971	150.21	5,240.42	3.45	9.66	2.87
1976	163.94	5,788.14	9.14	10.45	2.83
1981	170.40	6,292.63	3.94	8.71	2.71
1986	184.62	7,121.72	8.34	13.17	2.59

Source: ABS, Census of Population and Housing, 1966-1986

### 3.2.2 Ownership of Tasmanian Industry

The slow growth rate of white collar employment in Tasmania during the 1970s is partially explained by the fact that a large share of the state's private sector workforce is employed by non-locally owned enterprises. Primarily based in Sydney and Melbourne, these enterprises provide only a small number of white collar jobs within Tasmania, few of which are involved with strategic decision-making functions. Initial investigation into the extent of non-local ownership was undertaken by Wilde in 1975 (see Tasmanian Year Book, No. 10, pp. 404-6), using data obtained from the ABS integrated register system. Although data from the integrated register is subject to several limitations (see section 2.5),

estimates in 1975 indicated that approximately 32 per cent of the Tasmanian workforce (including both the private and public sectors) was employed by non-locally owned enterprises. In a later study, Wilde also highlighted the concentration of non-local ownership within Tasmania, estimating that 30 per cent of the state's total mining and manufacturing workforce was controlled from the boardrooms of only five externally-based enterprises in 1976 (Wilde, 1981a, p. 223).

Integrated register estimates of the percentage of employment under non-local ownership for each state during 1986 are shown in Table 3.7.

**Table 3.7: Ownership by Location of Controlling Head Office for Selected Australian Industries, 1986**

Industry	% of Employment Under Non-Local Ownership					
	NSW	VIC	SA	WA	QLD	TAS
Manufacturing	39	41	40	41	39	58
Mining	63	57	52	57	57	68
Construction	20	24	10	29	24	23
Wholesale/ Retail Trade	30	31	34	39	37	36
Transport/ Storage	17	33	50	35	51	42
Finance/Business Services	15	23	33	35	40	39
Community Welfare	40	31	37	52	46	46
All Industries <sup>1</sup>	30	30	35	40	39	40

<sup>1</sup> Includes data for electricity, gas& water, communication, public administration & defence, and entertainment (for which separate details are not shown).

Source: ABS, Integrated Register System.

In terms of total employment, Tasmania and Western Australia contain the highest level (40 per cent) of external ownership. Non-local ownership in Tasmania is highest within manufacturing (58 per cent) and mining (68 per cent), with both sectors containing a higher percentage of external ownership than any other state. Within the transport/storage and finance/business services sectors, the extent of external ownership within New South

Wales and Victoria is particularly low, reflecting the concentration of head office employment within Sydney and Melbourne for these industries. A detailed investigation of the nature of control within non-locally owned Tasmanian manufacturing enterprises is undertaken in Chapter 5.

### **3.2.3 Tasmania as an Island Economy**

Tasmania's position as Australia's only island state has also influenced the nature of economic change since 1974. As an island economy, Tasmania suffers the disadvantage of having to rely upon sea or air freight for all goods traded interstate. To guard against disruptions in transport services to mainland centres, Tasmanian firms typically maintain higher levels of material stock. This reduces the amount of capital available for other purposes and necessitates that firms plan their material requirements well in advance. Long term planning of material stock is often difficult, particularly for small enterprises which operate in markets guided by frequent changes in consumer tastes, or in manufacturing industries dominated by batch or one-off production runs of non-standardised products.

In 1974, the federal government sponsored a commission of inquiry into the transport problems of Tasmania (Nimmo, 1976). Particular attention was given to the question of whether Tasmanian freight and passenger rates interstate were higher than those incurred over similar distances between mainland centres. Following the committee's submission which demonstrated that Tasmania was in fact disadvantaged in respect to interstate freight rates, the federal government introduced the Tasmanian Freight Equalisation Scheme (TFES). Under the scheme, Tasmanian manufacturers are subsidised for excess transport charges incurred between Tasmania and the mainland. Although TFES subsidies are not granted for bulk, air or overseas cargoes, the scheme is a vast improvement over the previous system in which subsidies were given to the federal government owned carrier, Australian National Line. In 1977, subsidies were expanded to include south-bound freight utilised as material inputs for goods manufactured in Tasmania. Typically, less than 10 per cent of subsidies apply to south-bound freight.

Since the introduction of the TFES in 1976, numerous adjustments have influenced the level of subsidies paid to Tasmanian enterprises. In 1985, significant changes were introduced which affected enterprises (such as APPM, ANM, EZ, Comalco and Edgells) receiving the largest subsidy payments. Under the new TFES legislation, subsidies paid to enterprises claiming over \$300,000 annually are reduced by 10 per cent, and subsidies paid to enterprises claiming over \$1 million per year are cut by 20 per cent. In 1985, seven enterprises were subject to the 10 per cent cut and five qualified for the 20 per cent reduction. In total, these twelve enterprises received 70 per cent of the \$30 million in subsidies paid to claimants in 1985.

While TFES payments alleviate some of the cost disadvantages faced by Tasmanian enterprises in the movement of material goods across Bass Strait, several other problems arise from Tasmania's separation from the mainland. First, the transport of goods to the mainland must coincide with the shipping schedules of a small number of carriers operating from Tasmanian ports. Within the highly competitive mainland markets, manufacturers in some industries such as food products, textiles and clothing compete not only on a cost basis, but on their ability to meet the short term supply requirements of wholesale and retail organisations. Tasmanian firms operating in these industries must utilise airfreight services not covered by TFES payments. Second, the cost of personal travel and communication between Tasmania and the mainland is high. Third, Tasmanian enterprises requiring spare parts and materials at short notice are disadvantaged relative to their competitors located in larger centres such as Sydney and Melbourne. Mainland suppliers which prefer to sell goods over the counter are often reluctant to pack and ship goods to Tasmania, particularly when customers in Tasmania represent only a small fraction of their total turnover. Additionally, goods shipped to Tasmania may not arrive at the port nearest the consignee. For instance, depending on the shipping line and the scheduling of services, goods bound for Hobart may arrive in Burnie, requiring the consignee to either arrange for intrastate transport or wait until the shipping line accumulates sufficient freight to justify its sending a container by road to Hobart.

### **3.2.4 The Influence of Tasmania's Small Dispersed Population**

The problems associated with the movement of goods to and from Tasmania are compounded by the fact that the state's small population limits the potential for enterprises to expand within the local market. The existence of three distinct markets focusing upon Hobart in the south, Launceston in the north, and Burnie/Devonport in the north west has influenced the development of a manufacturing and service structure which is small in scale, specialised, and oriented toward the demands of the three market regions.

'Whilst such dispersion of the labour force, local market and industry is considered a desirable feature in larger, more densely populated areas, it represents a disadvantage in Tasmania since the essential support for a growing economy is lacking. There is a restricted range of professional and technical services within the state since no one centre is of sufficient size to provide the threshold level beyond which such functions may be viably provided. Thus, for specialised services, the Tasmanian economy is dependent upon the higher order mainland centres, particularly Melbourne...' (Hanson, 1985, Appendix 1, p. 19).

The dispersed nature of Tasmania's population has also led to the duplication of hospital services, education facilities, port authorities, and airports throughout the state. Intense regional competition for funding between the state owned facilities is commonplace, and has encouraged a north versus south parochialism which has further limited state development. The cost of providing adequate services to such a dispersed population, and the limited revenue raising capacity of the state, have forced Tasmania to rely upon the Commonwealth for much of the state's revenue and capital funding requirements. In 1986, Commonwealth payments to Tasmania represented 57.7 per cent of the state's total revenue receipts (ABS data). On a per capita basis, annual Commonwealth funding to Tasmania has traditionally been the highest of all the states. In 1986, Tasmania's per capita share of \$1,854 was 18.5 per cent higher than the nearest other state, Western Australia (Table 3.8).

Tasmania's inability to finance its own infrastructure development is clearly evident given the amount of Commonwealth funding which has gone into the state's road, airport, port, and rail facilities. In 1975, after many years of incurring substantial annual losses, the Tasmanian government handed over full control of the state's rail system (Tasrail) to the federal government. In order to reduce Tasrail's massive deficit, the federal

**Table 3.8: Commonwealth Payments to the States, 1986**

Type	\$ Received Per Head of Population					
	NSW	VIC	QLD	SA	WA	TAS
<b>General Purpose Payments</b>						
Recurrent Purposes	691.54	671.46	863.51	967.72	961.57	1162.52
Capital Purposes	33.01	33.94	31.87	53.42	36.86	107.18
<b>Specific Purpose Payments (Recurrent Purposes)</b>						
Education	214.52	248.12	206.31	227.75	230.50	208.94
Health	79.10	64.55	31.95	85.33	71.30	78.92
Social Security/Welfare	8.38	7.62	5.89	15.41	9.09	14.70
Housing/Community Amenities	0.33	0.32	0.16	0.95	1.35	5.20
Rural Industry	1.70	2.96	8.79	5.58	7.53	0.90
Transport & Communications	-	-	0.27	-	-	0.45
Other	19.45	21.08	11.62	21.72	24.29	17.41
<b>Total</b>	<b>323.47</b>	<b>344.64</b>	<b>275.78</b>	<b>356.74</b>	<b>344.05</b>	<b>326.53</b>
<b>Specific Purpose Payments (Capital Purposes)</b>						
Education	31.19	34.13	36.69	27.07	35.86	24.65
Health	3.12	3.15	3.22	3.16	3.27	4.97
Social Security/Welfare	1.06	1.60	1.45	1.10	1.78	0.90
Housing/Community Amenities	38.56	35.83	34.57	53.34	45.80	60.38
Rural Industry	0.66	1.04	12.64	1.03	1.85	0.45
Transport & Communications	73.47	61.59	101.13	71.39	119.23	106.73
Other	2.04	1.43	1.45	2.42	13.28	59.70
<b>Total</b>	<b>150.10</b>	<b>138.77</b>	<b>191.16</b>	<b>159.51</b>	<b>221.06</b>	<b>257.78</b>
<b>Total General and Specific Purpose Payments</b>	<b>1 198.13</b>	<b>1 188.83</b>	<b>1 362.31</b>	<b>1 537.38</b>	<b>1 563.61</b>	<b>1 854.01</b>

Source: ABS, Commonwealth Government Finance, Australia. Cat. No. 5502.0

government phased out passenger services, reduced the number of branch routes within the rail network, and concentrated upon the transportation of bulk commodities which represent over 70 per cent of total revenue. Despite major cutbacks since the 1970s, Tasrail continues to incur losses of approximately \$20 million annually. While only a small number of resource-based industries (primarily transporting timber, cement and coal) account for the majority of bulk cargo transported by Tasrail, closure of the rail system would place considerable strain upon both the transport resources of the resource-based enterprises and the state's road system. In 1988, the operations of Tasrail will once again come under review by the federal government. Following that review, it is likely that Tasrail will cease operations since the federal government's commitment to deficit funding ends in 1989.

Tasmania's slow rate of employment growth, narrow industrial structure, and continued reliance upon various forms of Commonwealth assistance have had a negative influence upon the performance of the state's economy since 1974. Reductions in Commonwealth spending have resulted in lower funding to the states, and it appears the state government has few viable options to compensate for its income losses.

The following section presents a brief summary of the state's manufacturing development to 1980. The summary is provided as a background to later chapters which deal primarily with Tasmania's manufacturing sector between 1980 and 1985. Discussion, based primarily upon secondary data sources, focuses upon the role which hydro-electric power and the state's natural resources have played in state government policies toward manufacturing development. The development of Tasmania's largest manufacturing enterprises is highlighted, as these few large operations employ a major share of the state's factory workforce and are referenced often in subsequent chapters.

### **3.3 THE DEVELOPMENT OF TASMANIAN MANUFACTURING TO 1980**

Between Tasmanian settlement in 1803 and Australian federation in 1901, Tasmania's economic development was both small in scale and strongly oriented toward the needs of the local population. Prior to 1850 manufacturing centred upon metal-



working, shipbuilding, and flour-milling activities (Linge, 1975). For a short period, shipbuilding and flour-milling enterprises were engaged in export trade to the recently established colonies of Victoria, South Australia and New Zealand. Between 1850 and 1890, however, these exports were reduced considerably as mainland producers became more competitive and import duties were placed upon Tasmanian products (Linge, 1979b). Colonial governments on the mainland were keen to encourage local development, and the small scale and decentralised nature of Tasmanian industry prevented Tasmanian producers from organising themselves and lobbying successfully against the trade restrictions. At the turn of the century Tasmania's population was nearly 175,000, and only 7,000 persons were employed in manufacturing (ABS data). As Linge (1979b) suggests, the structural weaknesses of the Tasmanian economy were apparent, as the cost of constructing roads, rail lines, and port facilities for the small dispersed population was well beyond the means of the colonial government. Unlike most of the mainland colonies, which developed outward from one major trading centre, Tasmania's early development encompassed both the north and south of the island. Hobart and Launceston were virtually settled at the same time with Launceston, in particular, benefiting as a destination for migrants and as a service centre for Tasmania's developing mining industries (Kellaway, 1987). Much of the capital needed to meet the costs of infrastructure development in Tasmania was borrowed from sources in London. By the late 1800s Tasmania's public debt was over £4.5 million (Linge, 1979b, p. 645).

### **3.3.1 State Government Policies of Hydro-Industrialisation**

From the early 1900s, Tasmania's manufacturing development was guided largely by state policies aimed at what has been dubbed 'hydro-industrialisation' and the attraction of large resource-based processing industries. In 1914 the state government established the Hydro-Electric Department (renamed the Hydro-Electric Commission (HEC) in 1930) and work began on the construction of a statewide power network. By 1970 the state grid included 17 generating stations with a combined generating capacity of over 1 million kW (Tasmanian Year Book, 1973). At that time, Tasmania was unique among Australian

states in that virtually all its electric power was generated by hydro-electric facilities. Early efforts to attract bulk power users were highly successful, particularly when combined with cheap access to local natural resources. Between the 1950s and the early-1970s, in particular, both domestic and bulk industrial power rates in Tasmania were considerably lower than in the mainland states (Turnbull, 1981). In the two decades following World War II, Tasmanian manufacturing employment increased by 14,504 persons, representing the second highest percentage increase (73.2 per cent) of all Australian states over the period (Table 3.9). The state's manufacturing employment peaked at 35,178 persons in 1968, six years prior to the highest ever national total of 1.3 million persons (ABS data). By 1954, the value of Tasmanian manufacturing production exceeded the value of output within the state's primary industries. In response to the state government's policy of hydro-industrialisation, several large manufacturing operations were established in Tasmania.

**Table 3.9: Manufacturing Employment by State, 1947-1967**

State	Persons Employed In Manufacturing		Employment Change 1947-1967	
	1947	1967	Absolute	Percentage
New South Wales	333,166	520,324	187,158	56.1
Victoria	260,402	438,490	178,088	68.3
Queensland	80,599	128,603	48,004	59.5
South Australia	68,980	125,053	56,073	81.2
Western Australia	35,454	60,893	25,439	71.7
Tasmania	19,811	34,315	14,504	73.2
Total Australia	799,134	1,312,481	513,347	64.1

Source: ABS, Manufacturing Statistics (various issues)

Of primary importance were mineral processing and forest products industries, the majority of which were established by mainland or foreign-based capital.

### **3.3.2 Mineral Processing Industries**

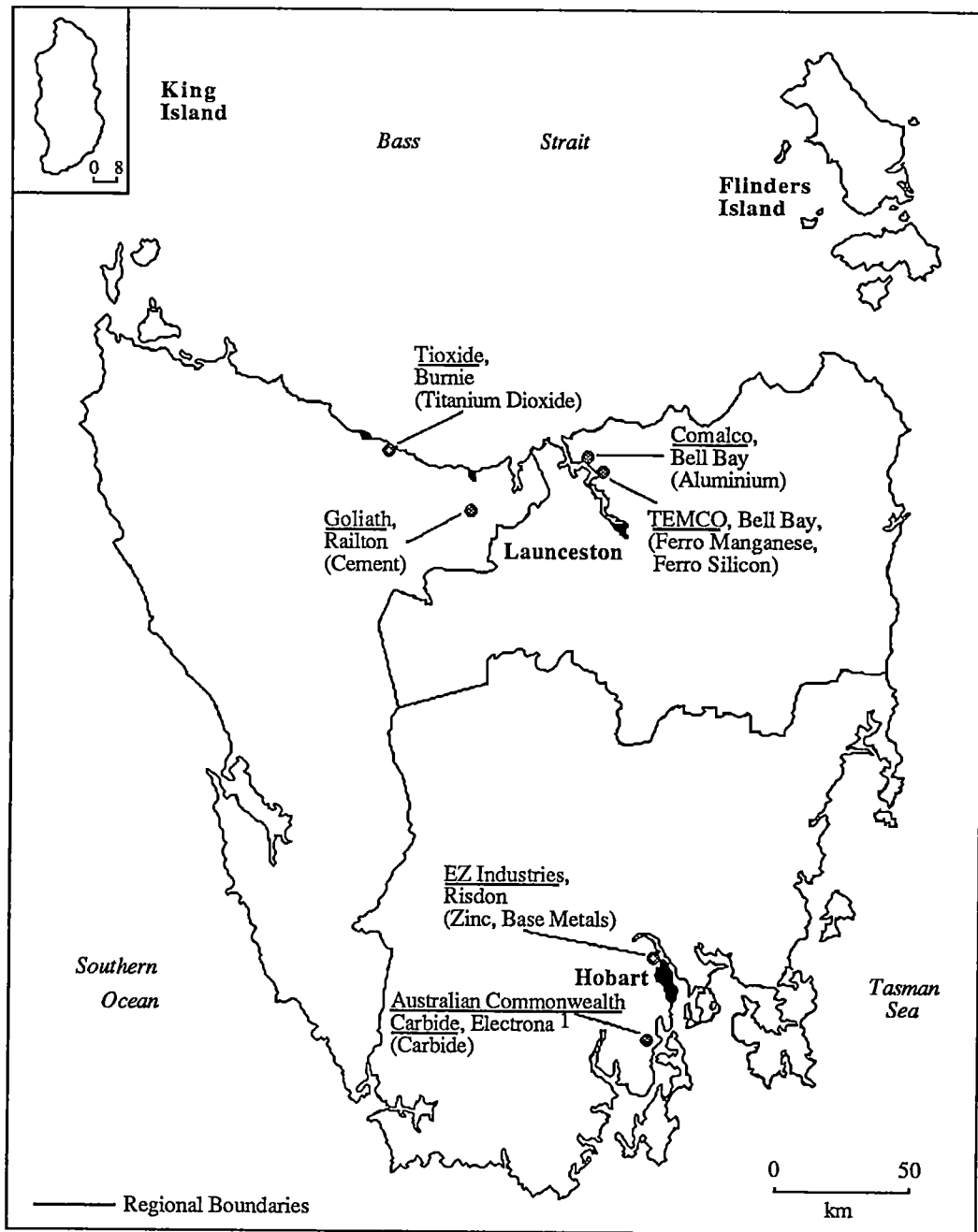
Several large mineral processing operations were established in Tasmania between 1900 and 1980. Attracted by cheap hydro-electric power, lax pollution laws, and to a lesser extent local raw materials, these enterprises employed approximately 19 per cent of the state's manufacturing workforce by 1980. In particular, four enterprises accounted for the majority of growth within the mineral processing sector. These include EZ Industries Ltd (EZ), Comalco Aluminium (Bell Bay) Ltd, Tasmanian Electro Metallurgical Company Pty Ltd (TEMCO), and Tioxide Australia Pty Ltd (Figure 3.11).

#### EZ Industries Ltd

The first of the major mineral processors to be established was EZ which commenced zinc production at Risdon, north of Hobart, in 1917. After a three year trial period during which the electrolytic process utilising Australian zinc concentrate was developed, the Victorian-based company expanded the plant to raise production to 37,000tpa. By 1980, the Risdon facility was the world's second largest producer of zinc, with an annual capacity of over 200,000 tonnes. Since the 1920s, approximately 30 per cent of the zinc concentrate required for production at Risdon has come from the company's mine at Rosebery, in western Tasmania. The remainder has come from mines at Broken Hill, New South Wales and Queensland. Between 1946 and the mid-1960s, EZ was the sole supplier of zinc alloy to Australian die-casting firms. In addition to refined zinc, the company produces sulphuric acid, superphosphate, and sulphate of ammonia. Nearly 80 per cent of Risdon's output of refined zinc is exported overseas.

Since 1960, the company has withdrawn from the European market in order to focus upon the more rapidly growing (and somewhat less competitive) markets of the Pacific region. Despite continued growth in these markets during the 1960s and 1970s, changes in the world supply and price of zinc have greatly influenced the profitability of the Risdon smelter. For example, during the 1977 financial year, the world zinc price fell by 34 per cent to \$A470 per tonne. As a result, EZ recorded a gross operating loss during 1978. One year later, however, the price of zinc recovered and EZ enjoyed its highest ever

Figure 3.11: Tasmanian Mineral Processing Operations, 1980



Source: Tasmanian Development Authority, 1985

<sup>1</sup> Closed in 1981, recommissioned as a silicon smelter by Pioneer Silicon Industries Pty Ltd in 1987

annual gross profit of \$17 million. In 1980, EZ employed 2,024 persons at Risdon, and over 1,100 at Rosebery. Since the 1960s, EZ has been the state's second largest bulk power consumer.

#### Comalco Aluminium (Bell Bay) Ltd

Tasmania's largest power user is Comalco's aluminium smelter at Bell Bay, north of Launceston. Established by the federal and Tasmanian governments in 1955, the Bell Bay plant was the first aluminium smelter to be built in Australia. The smelter was developed to ensure the supply of aluminium following difficulties importing the metal during World War II. The original investment at Bell Bay was \$22.4 million, resulting in an initial output of 12,000tpa. Given its small production capacity, the Bell Bay smelter was an immediate commercial failure as overseas manufacturers were more cost efficient and able to sell aluminium within the Australian market at a much lower price. In 1961, the federal government sold its equity in the smelter (82.6 per cent) to Comalco Industries Pty Ltd, while the Tasmanian government retained its 17.4 per cent shareholding. As a condition of the sale, Comalco was required to increase the smelter's capacity. After more than doubling the capacity to 32,000tpa by 1962, expansions continued to 1981 when the capacity of the plant reached 117,000tpa. Since 1962, bauxite required for the production of aluminium has come from Comalco's mine at Weipa in northern Queensland. In 1968, Comalco established a powder metallurgy facility at Bell Bay, employing approximately 35 persons in the production of aluminium powder and paste. While all powder and paste is sold to enterprises outside the Comalco group, virtually all of the aluminium produced at Bell Bay is transferred to Comalco's extrusion and fabrication plants throughout Australia.

Following Comalco's first public share issue in 1970, several investments by the company outside Tasmania have affected the operations at Bell Bay. In 1971, Comalco opened a 74,000tpa smelter at Tiwai Point in New Zealand. Eventually upgraded to 244,000tpa, the smelter's output is marketed in New Zealand and overseas. In 1979, construction of a 206,000tpa smelter began at Boyne Island, in Queensland. Aluminium production commenced in 1982, with the majority of output destined for South East Asian

countries. Although neither of the two new smelters has yet to compete with Bell Bay as a supplier of aluminium to Comalco's secondary processing facilities within Australia, both are far more technologically advanced and efficient than the smelter at Bell Bay. For example, the Boyne Island smelter is able to produce virtually double the capacity of Bell Bay, while requiring a workforce of approximately 200 fewer persons. In 1973, Comalco transferred alumina production from Bell Bay to the new Queensland Alumina Limited refinery at Gladstone. The refinery, in which Comalco holds a 30.3 per cent share interest, supplies the total alumina requirements of Comalco's Bell Bay, Boyne Island, and Tiwai Point smelters. In 1976, both employment and the range of activities undertaken at Bell Bay were reduced further as Comalco centralised its research activities near its head office in Melbourne. Bell Bay lost its entire research staff of 15 persons as well as several managers involved in research planning.

Despite the construction of Comalco's two new smelters, and the centralisation of alumina production and research facilities on the mainland, it is possible that the viability of the Bell Bay smelter was actually strengthened during the 1970s. Substantial investment by Comalco in its extruded products and consumer products divisions increased the group's competitiveness against its strongest rivals within the domestic market, Alcoa and Alcan. While the metal content of products in general has declined an average of 1 per cent per year since 1900 (Wilde 1988), domestic aluminium consumption in Australia increased by an average of 7.6 per cent per year during the 1970s. At the start of the 1980s, Bell Bay's role within the Comalco group was dependent upon its ability to compete against the Boyne Island and Tiwai Point smelters for investment, and to maintain its position as the largest supplier of primary aluminium to the group's extruded products division.

#### Tioxide Australia Pty Ltd

Australian Titan Products Pty Ltd (changed to Tioxide Australia Pty Ltd in 1972), a subsidiary of the UK-based British Titan Limited, was established in Burnie in 1948. Producing titanium dioxide pigments for use in paint, paper, plastics, inks, and various

other products, Tioxide's capacity increased markedly through the mid-1970s (from 1,500 to 32,000tpa) as the demand for its products within the Australian market grew steadily. During the 1970s, the British transnational ICI PLC acquired a 50 per cent shareholding in the Tioxide group, which consists of eight plants spread throughout Europe, Canada, South America and Australia. By 1980, the group was the world's second largest producer (behind DuPont) of titanium dioxide pigments. In terms of group production, the Tasmanian enterprise represents only 7 per cent of total output, selling primarily within Australia. Ilmenite, the primary mineral used in the manufacture of pigments, is supplied by the parent company's two mining subsidiaries Ilmenite Pty Ltd and Western Sands Ltd, both located in Western Australia. Minimal competition within the domestic market has enabled Tioxide to sell virtually all it produces. The only other Australian producer, SCM Chemicals Ltd, operates a 36,000tpa plant in Western Australia, exporting most of its output to Japan. Employing more than 400 persons by 1980, Tioxide is one of the major employers in Tasmania's north west region.

In addition to Tioxide, two other large non-metallic mineral enterprises, Goliath Cement Holdings Ltd and Australian Commonwealth Carbide Company, were established prior to 1980 (Figure 3.11). Goliath commenced production of cement at Railton in 1928, and grew rapidly after 1945 to become one of Australia's leading producers of cement and fibreboard products. With large clay and limestone deposits available at Railton, the company expanded until 1980 when the plant's annual capacity reached one million tonnes. Of all the major mineral processing enterprises in Tasmania, Goliath is the only company to have the majority of its shareholding held in the state. In 1972, Goliath diversified its operations in Tasmania by establishing a subsidiary company, Besser Tasmania Pty Ltd, which manufactures cement bricks for the building industry. Australian Commonwealth Carbide Company established a carbide works at Electrona in 1956. Protected against foreign competition by high tariffs, the plant operated profitably until the mid-1970s when the company encountered serious financial difficulties. The state government was approached for assistance, and injected \$14 million into the smelter between 1976 and 1980. Despite the government's generous but misguided financial

contribution the plant was closed in 1981, retrenching the workforce of 141 persons.

#### Tasmanian Electro Metallurgical Company Pty Ltd

In 1962, TEMCO commenced production of ferro manganese at Bell Bay. TEMCO was established by BHP in order to supplement the production of ferro alloys at its Newcastle plant. Expansion of BHP's steel production during the post-war period called for additional smelting capacity as imports of ferro alloys increased appreciably. The advantages of Tasmania's hydro-electric power and deep-water, all-weather port facilities on the Tamar River were sufficient to attract TEMCO to its Bell Bay location. In fact, the attraction of TEMCO was the last major 'success' of the state government's hydro-industrialisation policy agenda. In 1966, the capacity of the smelter was doubled with the commissioning of a second furnace. In 1974, BHP decided to rationalise its ferro alloy production. The Newcastle smelter, commissioned in 1940, was subsequently closed as the plant's limited capacity and technological obsolescence made TEMCO the more viable option for future expansion. Between 1974 and 1977, over \$40 million was injected into TEMCO in order to increase both total capacity and the range of ferro alloys produced. By 1980, TEMCO was one of the world's largest producers of alloys for the steel industry, with a capacity of 130,000tpa of ferro manganese, 25,000tpa of silico manganese and ferro silicon, and 250,000tpa of manganese sinter. Between 1974 when the Newcastle smelter was closed and 1980, TEMCO increased its workforce from 160 to 463 persons. At full capacity, TEMCO consumes 72.5MW of power, 4 per cent of the HEC's total generating capacity.

### **3.3.3 Forest Products Industries**

At present, approximately one-third (2.8 million ha) of the state's land area is covered in forests suitable for commercial development (Bowman, 1981). Over two-thirds of the state's forests are on Crown land, the management of which is largely controlled by the Tasmanian government. The allocation of Crown forests for private development dates back to 1898 when Tasmanian legislation was first introduced to



encourage the establishment of large-scale timber operations (Row, 1980). As noted by Wood and Kirkpatrick (1984):

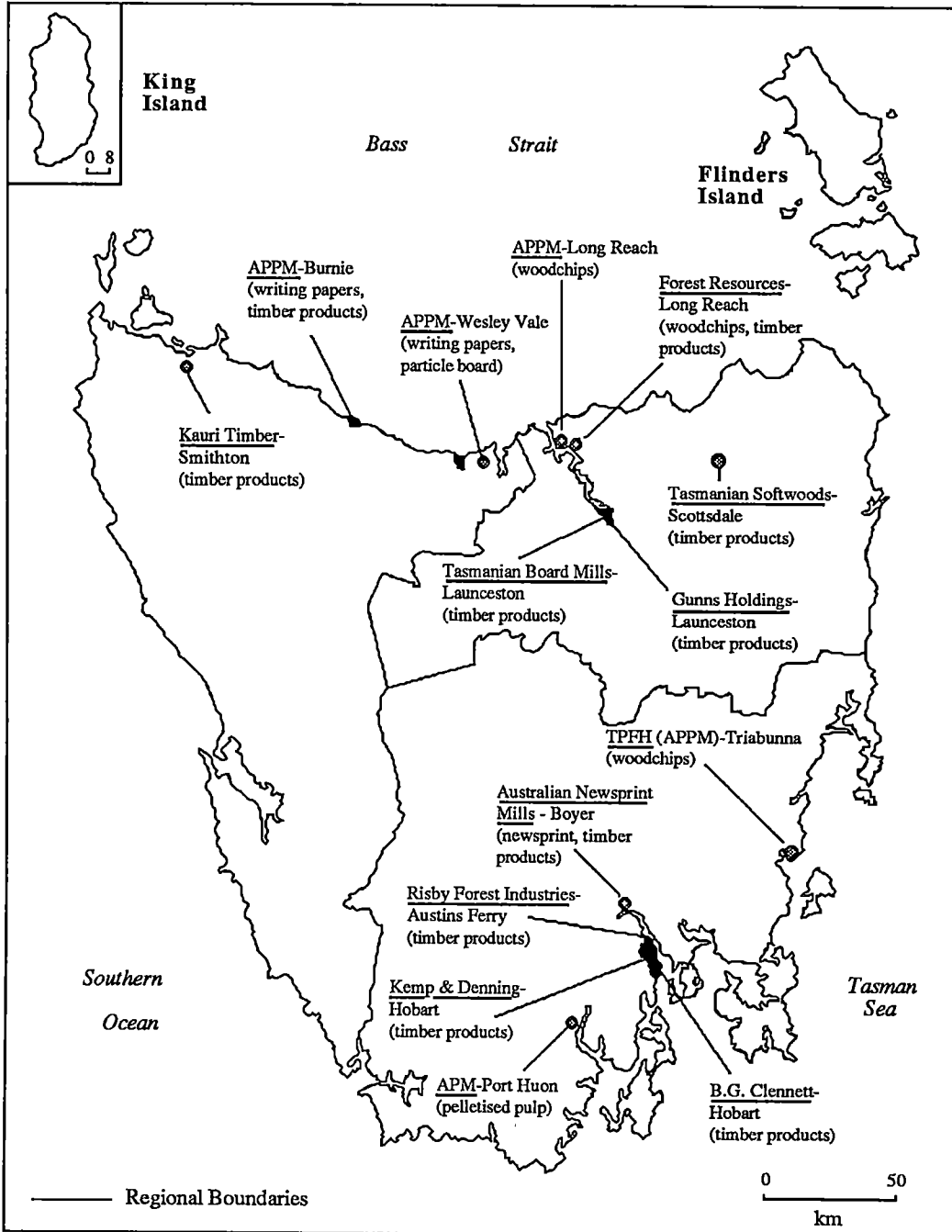
' The procedures established at the turn of the century set the ground rules for subsequent relationships between government and forest-based industries. The principle of offering exclusive rights over large tracts of state-owned forest to potential investors was seen as an appropriate means of providing capital, industrial development, infrastructure, and employment opportunities for the state' (p. 218).

Early utilisation of the state's forests was limited to the production of sawn timber, most of which was exported to the mainland. Prior to the 1920s, technologies available within the pulp and paper industry required the use of softwoods (primarily available in the northern hemisphere) in the manufacture of pulp. By the mid-1920s, however, technological developments enabled the use of hardwoods in the manufacturing process. These developments were encouraged by the Tasmanian government which aimed to exploit the state's forests. In setting the basis for the current forest concession system, the Tasmanian government passed the Wood Pulp and Paper Industry Encouragement Act in 1926 which provided for vast pulpwood concessions to be granted to companies establishing pulp and paper making operations in Tasmania. By 1980, the state's forest products industry was dominated by a few large, and predominantly non-locally owned, manufacturing enterprises (Figure 3.12).

#### Associated Pulp and Paper Mills, Ltd

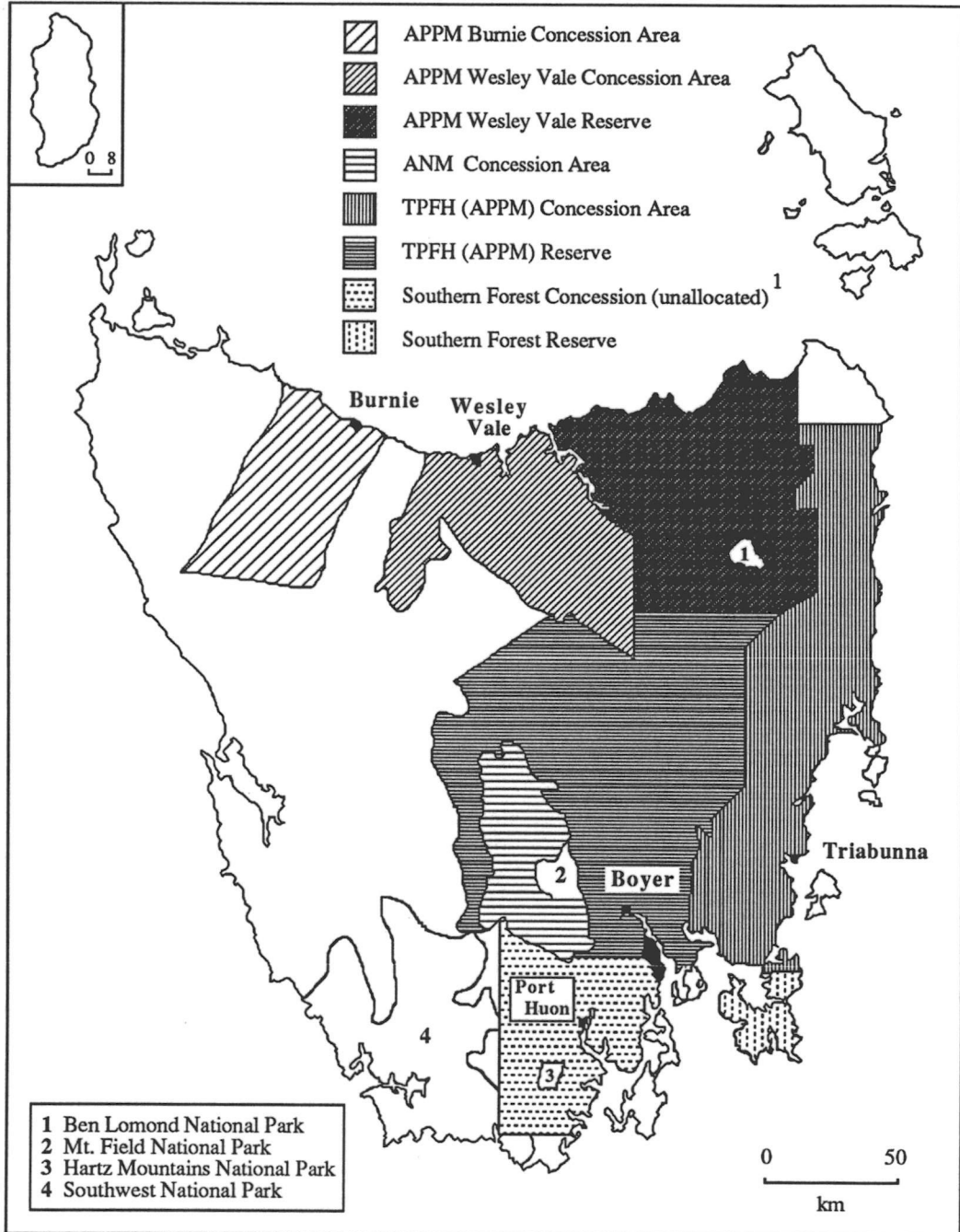
In 1938, Associated Pulp and Paper Mills, Ltd (APPM) commenced pulp and paper operations at Burnie, and became the first company in Australia to use eucalypt hardwoods as the basic material for the manufacture of fine papers. APPM's Burnie pulpwood concession, granted on a permanent basis in 1936, encompasses almost 150,000ha of Crown forest (Figure 3.13). After 1945, APPM's position as Australia's only producer of fine writing paper enabled the company to consolidate its share of the protected domestic market. In 1950, the company expanded into coated papers by establishing a small coating mill at Ballarat, in Victoria. Four years later, APPM diversified its product

Figure 3.12: Tasmania's Major Forest Products Companies, 1980



Source: Tasmanian Manufacturing Survey, 1986

Figure 3.13: Tasmanian Timber Concession Areas, 1985



Source: Tasmanian Forestry Commission, 1985

<sup>1</sup> Allocated to APM between 1959 and 1982

base in Tasmania by establishing a subsidiary company, Burnie Timber, to operate a woodchip and board mill facility adjacent to the Burnie paper operation. Woodchips from the new facility were used in the local pulp manufacturing process while the timber was primarily sold to wholesalers on the mainland. By the mid-1950s, APPM's head office and decision-making functions were firmly based in Melbourne, 25 per cent of the group's equity was held by foreign capital, and Tasmanian-based shareholding accounted for less than 3 per cent of the company's total share capital (Lawriwsky, 1978).

In 1961, the Tasmanian government allocated the Wesley Vale pulpwood concession to APPM, and by 1970 the company established a combined paper and coating plant producing magazine and high grade printing papers at Wesley Vale (Figure 3.12). Although the initial capacity of the Wesley Vale plant was only 40,000 tonnes per annum, and the adjoining pulp mill promised by the company had not yet been established, the state government granted APPM access to the 208,400ha Wesley Vale pulpwood reserve area in 1970 (Figure 3.13). With over 343,000ha of pulpwood available within the Wesley Vale concession and reserve areas, APPM constructed an export woodchip mill at Long Reach, north of Launceston, in 1972 (Figure 3.12). In 1979, APPM outbid the mainland-based conglomerate Petersville Sleigh Ltd to secure its takeover of Tasmanian Pulp and Forest Holdings Ltd (TPFH), which operated a woodchip facility at Triabunna (Figure 3.12). TPFH, Tasmania's first export woodchip operation, had been established by a group of indigenous sawmillers in 1971. As a result of the takeover APPM acquired both the mill and, more significantly, the TPFH east coast pulpwood concession area, increasing its statewide timber resource to approximately 77 per cent (905,400ha) of the concessions in Crown forests.

Virtually all of Tasmania's woodchip production is linked to long-term contracts with Japanese pulp and paper manufacturers. Although Australian enterprises account for less than 1 per cent of world woodpulp production, they supply 60 per cent of the hardwood woodchip requirements for Japan's pulp and paper industry (Australia/Japan Joint Study Group, 1980). Growth in the Japanese pulp and paper market has been steady since 1970, and the market potential for Tasmanian woodchip producers is limited

largely by their ability to secure adequate long-term timber resources. For each producer, the state government allocates production allowances for timber obtained from the concession areas. However, there are no restrictions on agreements between the timber companies and private land owners. Privately owned forests thus represent an additional resource to the woodchip companies, and considerable efforts have been made to increase their utilisation. Between 1970 and 1982, 11 million tonnes of timber for woodchip production were harvested from over 110,000ha of private forest (The Mercury, 7 February 1985). In order to ensure the future availability of private timber resources, APPM established the Tasmanian Forest Farmers Program in 1980 to encourage and assist in the development of private plantations in the north east of the state. Since 1979, Tasmania's export woodchip industry has grown very slowly, maintaining production levels of just over 3 million tonnes per annum.

By 1980, APPM had established itself as the dominant forest products enterprise in Tasmania. As well as having access to over 75 per cent of the Crown forest concession areas, APPM accounted for 60 per cent (2 million tonnes) of the state's total annual pulpwood production, 25 per cent of Tasmania's sawn timber production, and was the largest private sector employer in Tasmania (Dargavel, 1984, p. 79). In addition to the takeover of TPFH, APPM has asserted its power over many of the state's smaller sawmillers, either through direct takeovers (particularly within the Burnie concession) or through clearfelling and forest management practices which have restricted the amount of sawlogs available to the small locally-owned mills (Bowman, 1981). Growth in the domestic paper industry was steady throughout the post-war period. APPM's success within the domestic market was encouraged partly by the fact that the average effective rate of assistance to pulp, paper and paperboard manufacturers in Australia has always been at or below 10 per cent. APPM has been most competitive against foreign manufacturers within the market for uncoated papers, controlling almost 80 per cent of the Australian market since the 1950s (Bureau of Agricultural Economics, 1986).

### Australian Newsprint Mills, Ltd

Prior to World War II, all Australian newsprint was imported from Canada, the UK, and Scandinavia (Dargavel, 1984). In 1935 a joint venture between Australia's two largest newspaper companies, John Fairfax and Sons Ltd and The Herald and Weekly Times Ltd, led to the formation of Australian Newsprint Mills, Ltd (ANM). At the time, Canadian manufacturers supplied approximately 60 per cent of the Australian newsprint market. A deal was subsequently made between ANM and the Canadian manufacturers which would increase their market share to 80 per cent, and leave the remaining 20 per cent to ANM. In 1935, ANM was allocated a 132,000ha pulpwood and timber concession in the Florentine Valley, one of Tasmania's most productive forest areas (Figure 3.13). Under the terms of the concession agreement, the company was granted exclusive rights to all timber (for a period of 111 years) on the condition that it provided up to 5 per cent of the sawlog timber to local sawmillers.

The newsprint mill, constructed at Boyer, began operations in 1941 with an initial annual capacity of 27,000 tonnes (Figure 3.12). During the war, imports of Canadian newsprint were disrupted, enabling ANM to establish itself firmly within the Australian market. Over the next two decades, an additional paper machine was installed, raising the capacity of the plant to over 89,000 tonnes by 1960. ANM's additional requirements for long-fibred kraft pulp were satisfied through long term supply contracts with several New Zealand forest products companies. In 1963 the Canadian transnational Bowaters granted its share of the Australian newsprint market to the New Zealand company Tasman Pulp and Paper. A share exchange of 200,000 ordinary shares was made between Tasman Pulp and Paper and ANM, securing a share of the Australian market for the New Zealand company (Le Heron, 1986, p. 11). A third paper machine was commissioned by ANM in 1969, lifting its annual production to 170,000 tonnes. By 1970, ANM held approximately 40 per cent of the Australian newsprint market.

During the 1970s, ANM's strategy was to strengthen further its current position within the domestic market and to ensure the viability of its newsprint operations into the 1990s. In 1976 two major developments were announced by ANM's management. First,

the company commissioned a feasibility study to assess the proposed establishment of a second newsprint mill, at Albury in New South Wales. The proposed plant would virtually double the capacity of ANM's newsprint production, and enable the company to gain control of 75 per cent of the vast softwood plantations owned by the Victorian and New South Wales governments. Had ANM not followed this strategy, it is likely that a second newsprint manufacturer would have been granted the pulpwood resource and ultimately threatened the viability of the Boyer mill. Second, ANM decided to construct a \$13 million thermo-mechanical pulp mill at Boyer. Construction of the mill meant that approximately 142,000 tonnes of radiata pine would be drawn annually from private and Forestry Commission plantations in north east Tasmania. More importantly, the mill would reduce ANM's imports of long fibre craft pulp from 21 to 12 per cent, saving the company over \$37 million per year in foreign exchange (Australian Financial Review, 29 June 1978). Contracts for the supply of long fibre pulp from Tasman Pulp and Paper were terminated after the new pulp mill at Boyer became operational in 1978. ANM subsequently regained its 16 per cent shareholding held by the New Zealand Company (Le Heron, 1986).

In 1978 construction of the Albury thermo-mechanical pulping and newsprint mill began. Eager to secure the development, the New South Wales government provided generous concessions to ANM. These included tax rebates, subsidies for transporting production machinery from Sydney and Melbourne, the establishment of a \$1 million road network adjacent to the mill, and the construction of over \$2.4 million in private housing for ANM employees. The Albury complex was completed in 1981 at a total cost of \$200 million (almost double the original cost projections of 1978). One of the most advanced newsprint mills in the world, the Albury plant increased ANM's capacity to 80 per cent (400,000tpa) of the domestic newsprint market (ANM, 1985). Despite assurances from ANM management that future investment would not favour Albury over the Boyer mill, several commentators have suggested that ANM's development at Albury represents 'the classic lever on the regional state through the re-location of production' (Dargavel, 1984, p. 83). Although the majority of ANM's board members and shareholders reside outside

Tasmania, the group's head office remained in Hobart after the Albury mill was completed.

#### Australian Paper Manufacturers

In 1959 the 77,300ha Southern Forest Concession, located in the Huon district south east of Hobart, was granted to Australian Paper Manufacturers (APM) on an 80 year basis (Figure 3.13). APM, Australia's largest manufacturer of pulp, paper and paperboard products, established a mill at Port Huon to manufacture pelletised hardwood pulp for use at three of its eight paper mills located throughout the mainland (Figure 3.12). In 1962 the Port Huon mill commenced operations, with an initial capacity of 25,000tpa. The state government provided a major portion of the capital required for infrastructure development, including the construction of a dam at Rileys Creek to ensure the supply of fresh water, and the installation of a 110kW power supply line from Hobart. At the time the mill was established approximately 70 persons were employed in the manufacture of pulp, one-seventh of the labour input necessary for ANM to produce the same level of output at its Boyer facility (Dargavel, 1984). Unlike APPM, APM had no interest in exploiting the sawlog resources of its pulpwood concession. Consequently, indigenous sawmillers who were logging portions of the Southern Concession prior to 1959 continued to do so after the Port Huon pulp mill was established.

For two decades APM continued to operate the Port Huon mill, maintaining a stable level of employment while investing only in replacement-capital required to maintain the mill's operation. Annual production never exceeded 50,000tpa, well below the sustainable yield of the Southern Concession. In November 1982 APM announced it would close the mill in late December, giving the state government only one month to convince APM to continue operations, or find another company to purchase the mill. Neither solution was reached, and within one month approximately 80 mill workers and 260 contractors (employed in cutting and transporting timber) lost their jobs. APM's decision to close the mill was made in relation to its overall group strategy at a time when the Australian paper market was severely depressed. Closure of the Port Huon facility



presented itself as a viable option since the mill represented only a small percentage of APM's total group investments.

Following the closure of the mill, the state government immediately revoked APM's timber rights to the Southern Forest Concession. The mill remained vacant until 1986 when APM's management approached the Tasmanian government with an offer to re-establish its operations in the Huon. In response to APM's offer of employment (albeit one-half of the previous workforce), the state government granted the company short term access to pulpwood resources in part of the southern concession. The state government's subsequent refusal to re-allocate the entire forest concession to APM has prompted the company to seek federal government assistance in maintaining its timber resource (The Mercury, 29 September 1987). Since APM was closed in 1985 when the thesis research commenced, the company was not included in the survey of local manufacturers.

#### Petersville Sleigh Ltd

One of the most recent organisations to establish itself as a major forest products company in Tasmania is the mainland-based transnational Petersville Sleigh Ltd. In 1971 the company created a separate forest products division. Based in Melbourne, the division gained entry into the Tasmanian woodchip industry by taking-over the Launceston-based company Northern Woodchips Pty Ltd. In 1969 the state government granted Northern Woodchips an export licence to supply approximately 9 million tonnes of eucalypt woodchips to Japan over a fifteen year period. Unable to raise the capital required to establish its chip mill at Long Reach (adjacent to APPM's woodchip facility), Northern Woodchips was forced to cease construction and was eventually taken-over by Petersville Sleigh. The mill was completed and woodchip exports commenced in December 1972. At the time, the parent company decided to retain Northern Woodchips as the trading name under which its Tasmanian subsidiary operated.

In contrast to the state's two other woodchip facilities operated by APPM, Northern Woodchips obtained most of its timber from private land as the company was unable to compete against APPM for access to resource held in Crown forests. Instead, contracts

were made with over 200 private land owners throughout the state to ensure future timber supplies. In addition, the company itself has purchased more than 23,000ha of land on which it has utilised the available eucalypt resources and undertaken intensive reforestation. Under the terms of its export licence agreement, Northern Woodchips was committed to reforesting 2,000ha per year over a ten year period which commenced in 1977. Consequently, over one-half of the company's direct wage and salary earners are employed in reforestation and forest management activities. In 1980, Northern Woodchips was renamed Forest Resources, and diversified its Tasmanian forest-based operations by purchasing one of the state's largest sawmilling companies, Tasmanian Board Mills.

#### Tasmania's Independent Sawmills

Quite clearly, the four companies (APPM, ANM, APM, and Forest Resources) engaged primarily in pulp, paper and woodchip production were, by 1980, dominant in terms of employment, turnover, and value-added within Tasmania's forest products sector. The growth of these major companies, and the state government's continued support for them since the 1930s, have greatly influenced the development of independent sawmilling enterprises in Tasmania. In particular, APPM's movement into sawmilling activities created uncertainties regarding the company's rights to sawlogs within its pulpwood concessions. Under the concession system, integrated logging activities favoured the development of the major companies over smaller sawmills which had little input into legislation dictating the conditions under which Crown forest concessions were to be managed (Dargavel, 1984). Moreover, the state government's willingness to grant APPM access to its reserve areas has further strengthened the company's control over both pulpwood and sawlog resources. As the major companies increased their usage of concession and reserve area resources, the smaller mills were forced to rely more heavily upon private land as opposed to both continuing and non-continuing Crown forest allocations. Competition for private land often increased the distance between mills and their timber resources, placing increased pressure upon the profitability of the state's

smaller operators.

In 1951, the number of sawmills operating in Tasmania peaked at 355. Together, these mills employed 2,340 persons and produced 293,000m<sup>3</sup> of sawn timber. By 1980, the number of mills fell by 102 (-71 per cent), total employment declined by 22 per cent (-513 persons), and production of sawn timber increased by 27.6 per cent (80,900m<sup>3</sup>). In addition to APPM, several large independent sawmills established themselves as leading forest products companies. These include Kauri Timber, in the north west region; Tasmanian Board Mills Ltd, Gunns Holdings, and Tasmanian Softwoods, in the north of the state; and Risby Forest Industries, Kemp and Denning Ltd, and B.G. Clennett in southern Tasmania (Figure 3.12). With the exception of Kauri Timber, each of these companies was developed by indigenous capital. Only Tasmanian Board Mills has since been acquired by capital outside the state. In 1980, these seven companies accounted for approximately one-half of Tasmania's sawn timber production, nearly 80 per cent of which was marketed through timber wholesalers in Victoria.

#### **3.3.4 Agricultural and Filtered-Down Processing Activities**

Apart from the major resource-based operations, largely attracted to Tasmania by the state government's policy of hydro-industrialisation and resource concessions, other large manufacturing enterprises established in Tasmania prior to 1980 were primarily production segments of mainland or overseas corporations, engaged in agricultural or filtered-down manufacturing activities.

Large scale processing of agricultural products began in northern Tasmania during World War II when the federal government established vegetable dehydration plants at Scottsdale, Ulverstone and Smithton. In 1944, a canning factory was built at Devonport by the H.J. Heinz company to service the government's dehydration facilities. Following the war, the state-owned plants were eventually sold to private enterprise. After an unsuccessful trial period as a fish cannery, the Ulverstone plant was purchased in 1947 by International Cannery Pty Ltd which converted the factory back to vegetable processing,

specialising in potato products. Later that year, Dewcrisp Products Ltd purchased the government's Scottsdale plant and expanded production of dehydrated vegetables, and frozen and canned peas. In 1955, Gordon Edgell Pty Ltd bought the Devonport plant originally operated by Heinz, and expanded production of canned and frozen green vegetables. Edgell later acquired the Ulverstone factory from International Cannery. At Scottsdale, Kraft Foods Ltd purchased Dewcrisp Products in 1961, and was subsequently taken over by General Jones Pty Ltd in 1974. By 1980, the industry appeared to stabilise, with General Jones operating at Smithton and Scottsdale, and Edgell-Birdseye (by this time part of the Petersville Sleigh Group) manufacturing at Devonport and Ulverstone. In addition to a combined factory workforce of 850 persons, the four plants employed more than 1,400 contract vegetable growers throughout northern Tasmania.

Between 1920 and the early 1960s, several large filtered-down industries were established in Tasmania. In particular, six textile firms, an automotive bearing manufacturer, a Cadbury's confectionery plant, and a manufacturer of hand tools accounted for the majority of the workforce employed in filtered-down production activities by 1970. Tasmania's textile industry, attracted by various factors including an abundant and low cost labour pool, state government incentives, and the availability of soft water, employed over 4,000 persons in 1970. Development favoured the north of the state, with three enterprises locating in Launceston (Kelsall & Kemp, Coats Patons, and James Nelson), two locating in Devonport (Tootal and Tascot Templeton), and only one establishing in Hobart (Universal Textiles). Four of these enterprises were originally established as wholly-owned subsidiaries of UK-based corporations, while Universal Textiles and Kelsall & Kemp were originally Tasmanian owned.

The 25 per cent tariff reduction of 1973 had a devastating influence upon the state's textile industry. One of the largest enterprises, Kelsall & Kemp, ceased operations. Each of the other major enterprises cut production and reduced employment. Coats Patons, the state's largest textile manufacturer, decreased its workforce from 2,100 to 591 persons between 1973 and 1978. In total, the number of textile manufacturers fell by one-half, and employment within the industry declined by 60 per cent (2,400 jobs) between 1970

and 1980. In the wake of mergers, takeovers, and closures within the textile industry worldwide during the 1970s, two of the UK-based enterprises (James Nelson and Tootals) were ultimately purchased by Australian capital, and a third enterprise (Tascot Templeton) was taken-over by the Malaysian government.

Cadbury Schweppes, the largest of Tasmania's filtered-down enterprises by 1980, was established near Hobart in 1921. A wholly-owned subsidiary of Cadbury Schweppes PLC in the UK, the Tasmanian enterprise became the largest confectionery plant in Australia. In 1967, Cadbury's acquired the Australian operations of MacRobertson Ltd, which included a new confectionery plant in Melbourne. Initially, the Hobart and Melbourne plants manufactured similar product lines, but as part of a major rationalisation in 1978, the duplication of production ended as each plant began to specialise in particular products. In addition, the Tasmanian enterprise lost some of its autonomy as the group's computer services division was transferred from Hobart to Melbourne.

The manufacture of bearings for the automotive industry began in 1949 when the Repco Bearing Company was established in Launceston. As a result of technical agreements reached with the American manufacturer Cleveland Graphic Bronze Ltd in 1954, Repco became the leading supplier of bearings to the rapidly expanding Australian car industry between 1960 and 1970. In 1963 a second factory was opened in Launceston to accommodate the company's expanded range of engine components, including gears and brake pistons. A third plant commenced operations in 1974, producing copper alloy powders for use in the production of self-lubricating bearings and structural parts. By 1980, over 550 persons were employed by Repco in Launceston.

The last of the large filtered-down operations to be established prior to 1980 was the Hobart firm Stanley-Titan Pty Ltd, a manufacturer of hand tools, in 1963. Originally a joint venture between the BHP subsidiary Titan Manufacturing and Stanley Tools (USA) Ltd, the plant gradually expanded the range of products produced, maintaining its position as the only manufacturer of hand tools in Australia within the Stanley-Titan group. Following the purchase of BHP's shares in 1972, Stanley became a wholly-owned subsidiary of Stanley (USA), employing over 200 persons in Tasmania.

Although Tasmania was moderately successful in attracting filtered-down industries between 1920 and the early 1960s, most of the factories attracted to the state declined in terms of both employment and output during the 1970s. Since 1970, several factors including the global recession, changes in the federal arbitration system, and the rising capital cost structure of hydro-electric development have considerably weakened Tasmania's ability to encourage the establishment of large filtered-down industries.

The final section of the chapter summarises the structure of Tasmania's manufacturing economy in 1985, using data obtained from the manufacturing survey. Particular attention is given to the identification of ownership, enterprise size, industry structure, and market orientation of the state's manufacturing sector. Subsequent chapters provide a more intensive investigation into the processes within and between the state's manufacturing enterprises.

#### **3.4 THE GENERAL STRUCTURE OF MANUFACTURING IN 1985**

Given Tasmania's dependence upon resource-based industries, its economy differs greatly from other regional economies to which most research on firm size, ownership and enterprise segmentation has been directed. The majority of Tasmania's primary resource-based products, including sawn timber, woodchips, paper, zinc, and aluminium are sold in interstate and overseas markets. Success in these markets often fluctuates widely, due to the influence of external factors such as world metal prices, exchange rates, and the domestic building market, upon which Tasmanian manufacturers have little or no influence. In 1985, total employment among resource-based industries accounted for one-half of the state's manufacturing workforce (Table 3.10). Moreover, the state's four largest non-locally owned resource-based enterprises (APPM, EZ, ANM and Comalco) employed 27 per cent (7,360 persons) of all factory employment. Concentration of ownership among the four largest resource-based enterprises has increased since 1980, as the Melbourne-based corporation North Broken Hill Holdings Ltd (NBH) acquired APPM in 1983 and EZ in 1984. As a result of the acquisitions, NBH became the largest and most powerful private sector employer in Tasmania.

**Table 3.10: Manufacturing Employment in Tasmania's Resource-Based Industries, 1985**

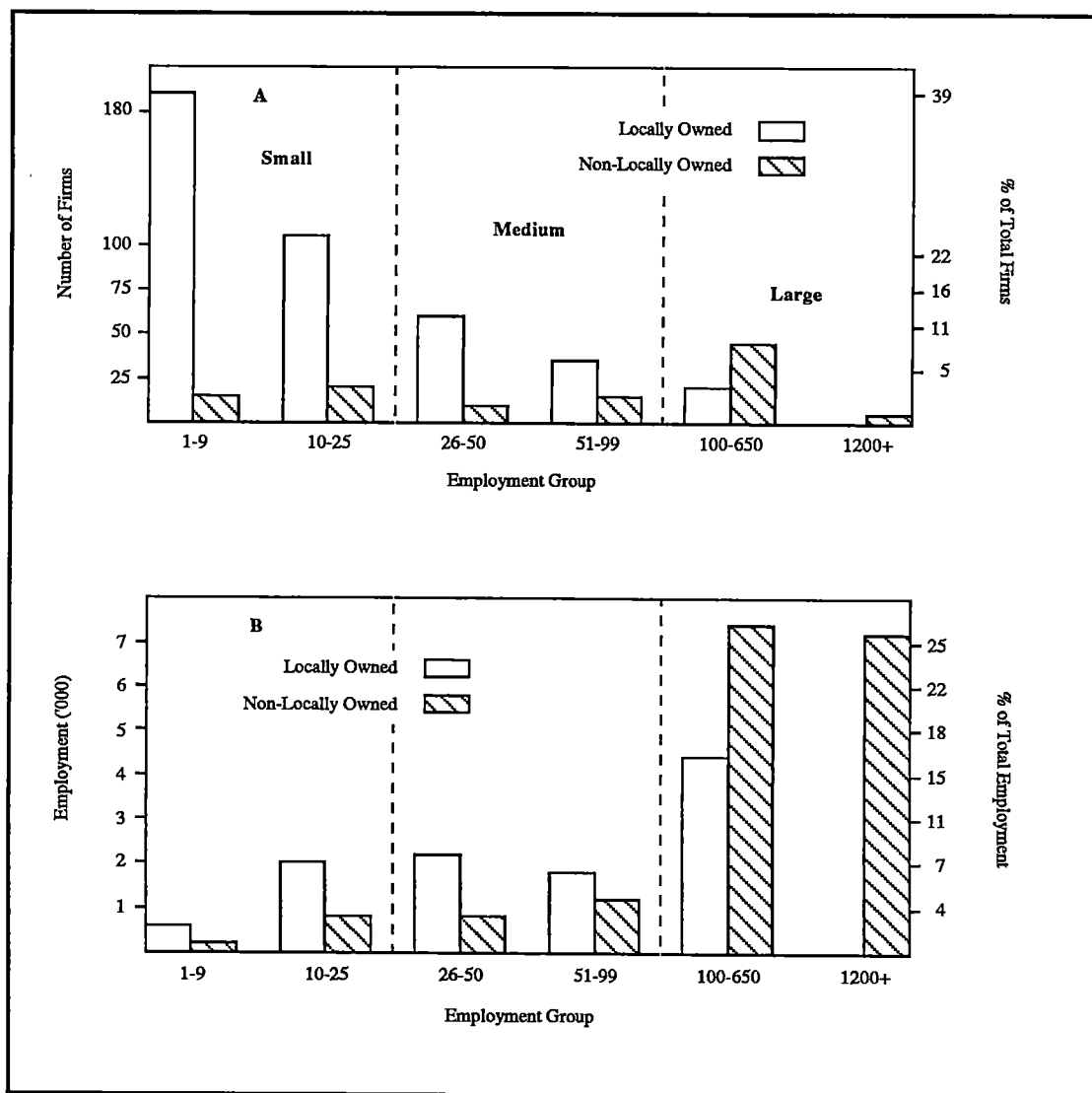
Industry	Employment (persons)	% of Total Manufacturing Employment
Timber	4,016	15
Basic metals	3,619	13
Paper products	3,488	13
Fruit & vegetables	1,205	4
Seafood processing	808	3
Furniture (wooden)	489	2
Total	13,625	50

Source: Tasmanian Manufacturing Survey, 1986.

Notwithstanding the fact that Tasmania's four largest resource-based enterprises employ nearly one-third of the manufacturing workforce, the numerically dominant unit of production is the small indigenous enterprise (Figure 3.14A). Over 73 per cent (N=338) of all enterprises are locally owned and employ fewer than 50 people. In contrast, only 10 per cent (N=47) of enterprises employ 100 or more persons. However, 67 per cent of the manufacturing workforce is employed by these 47 enterprises, reinforcing the dominance of employment control by the state's few large firms (Figure 3.14B). The distribution of enterprises by employment size suggests that the small, medium, and large enterprise, in the Tasmanian context, differs from what has been used elsewhere as a definition of firm size (for example, see Johns *et al*, 1983; Storey, 1983). Specifically, a reasonable classification for Tasmania defines small firms as those employing fewer than 26 persons, medium firms employing between 26 and 99 persons, and large firms employing 100 or more persons.

For operational reasons, these definitions are presented here so that reference can be made to the relations between small, medium, and large enterprises in later chapters.

**Figure 3.14 Employment Control by Size and Ownership of Tasmanian Manufacturing Enterprises, 1985**



Source: Tasmanian Manufacturing Survey, 1986



However, the definitions are based upon an intensive understanding of the organisational structure and strategies adopted by Tasmanian enterprises. For example, small enterprises are primarily defined in relation to the imposition of state payroll tax. Most enterprises employing less than 26 persons fall under the \$300,000 wage exemption limit, above which firms are required to pay a 5 per cent tax on their total wage bill. Managers of small enterprises typically view payroll tax as both a barrier to growth and a means by which they would become less competitive against enterprises not paying the tax (see Chapter 6). Small and medium enterprises are also defined on the basis of organisational complexity, and the willingness of managers to delegate authority and take risks within the marketplace. Medium and large enterprises are defined on the basis of the separation of ownership and control, and the capital intensity of production operations. Additionally, since each of the state's four largest enterprises is significantly larger than other enterprises employing over 100 persons in terms of employment and capitalisation, it is important to analyse them separately.

In Tasmania, 26,967 persons were employed in manufacturing during 1985 (Table 3.11). The state's 85 non-locally owned enterprises, most of which employ over 100 persons, account for 61 per cent of manufacturing employees, including the majority (60 per cent) of all female labour. The remaining 39 per cent of the manufacturing workforce is employed by Tasmania's 374 indigenous enterprises. External control, measured in terms of employment share, is strongest in the basic metals, textile and paper products industries, where a small number of non-local enterprises employ the majority of the workforce in each sector. In addition, a small number of large non-locally owned enterprises employs a significant percentage of the workforce in the food products, transport equipment, and non-metallic mineral products sectors. Indigenous firms control over one-half of the workforce in only one of the five largest industries (wood products), although the indigenous share appears to have decreased slightly over the last decade as the number of small sawmillers has continued to decline.

Over 77 per cent of the manufacturing workforce is employed by enterprises which are heavily dependent upon sales in export markets. Moreover, indigenous and non-

**Table 3.11: Tasmanian Manufacturing Employment by Location of Controlling Head Office, 1985**

Industry	Number of Enterprises		Total Employment <sup>1</sup>	% of Total Manufacturing Employment	
	Tasmanian Owned	Non-Locally Owned		Tasmanian Owned	Non-Locally Owned
Basic metal products	11	4	3,619	2	98
Textiles	9	5	1,568	4	96
Paper, paper products publishing & printing	27	6	5,159	27	73
Chemical, petroleum & coal products	21	9	993	35	65
Food & beverage products	54	19	5,812	36	64
Transport equipment	21	1	948	53	47
Fabricated metal products	38	13	1,284	54	46
Non-metallic mineral products	42	7	1,273	55	45
Wood, wood products & furniture	67	10	4,579	66	34
Clothing & footwear	8	1	480	72	28
Miscellaneous manufacturing	35	7	609	77	23
Industrial machinery & equipment	41	3	642	87	13
<b>Total Manufacturing</b>	<b>374</b>	<b>85</b>	<b>26,967</b>	<b>39</b>	<b>61</b>

<sup>1</sup> Based upon average employment during 1985.  
Source: Tasmanian Manufacturing Survey, 1986

locally owned enterprises are effectively manufacturing products for two separate markets. Non-locally owned enterprises are reliant upon markets outside Tasmania for an average of 56 per cent of their total product sales, compared to only 14 per cent for indigenous enterprises (Table 3.12). Non-locally owned enterprises most dependent upon the Tasmanian market include those operating in the non-metallic minerals, fabricated metals, and miscellaneous manufactured products (including plastics, signs, and eyeglass lenses) sectors. Indigenous enterprises export over 50 per cent of manufactured products in only one industry subdivision, clothing and footwear.

In total, 83 per cent (N=311) of indigenous enterprises are primarily engaged in the manufacture of non-resource based products for the Tasmanian market (Figure 3.15). These enterprises employ 22.8 per cent (5,802 persons) of the state's full-time manufacturing workforce and over one-third (527 persons) of all part-time workers. Employment control within the non-locally owned sector is greatest among the 26 enterprises primarily manufacturing resource-based products for mainland and overseas markets. These enterprises account for 40 per cent (10,178 persons) of all full-time, and 23.4 per cent (368 persons) of all part-time manufacturing employees in Tasmania.

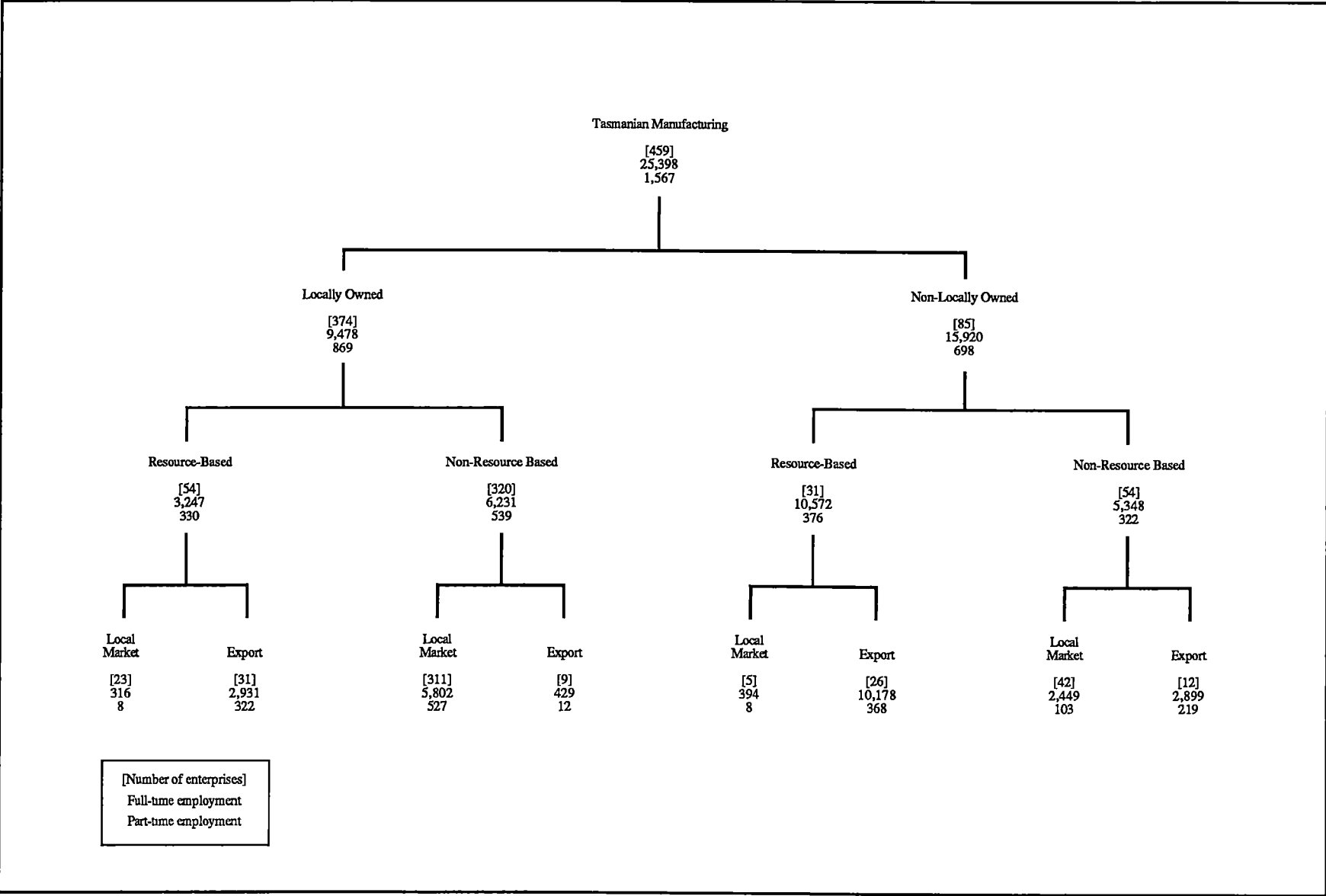
In terms of spatial concentration, employment control among non-locally owned enterprises is highest within north western and western Tasmania. In the north west region, APPM alone employs 32.5 per cent (2,482 persons) of the manufacturing workforce, in its pulp, paper and timber operations (Table 3.13). Other non-locally owned enterprises employ a further 32.8 per cent (2,506 persons) of the factory workforce while indigenous enterprises account for only 34.7 per cent (2,642 persons) of the region's manufacturing employment. The structure of manufacturing in north and north eastern Tasmania, focusing upon Launceston, is clearly more diversified than in the north west region. Of the four largest enterprises, APPM, ANM, and Comalco employ only 18 per cent (1,471 persons) of the manufacturing workforce. However, employment control among other non-locally owned enterprises is particularly high (44.2 per cent), reflecting the large number of filtered-down and timber processing operations which operate in the region. Indigenous employment is highest in southern and eastern Tasmania

**Table 3.12: Market Orientation by Industry and Ownership of Tasmanian Manufacturers, 1985**

Industry	Non-Locally Owned		Locally Owned	
	Enterprises	% Sales Outside Tasmania	Enterprises	% Sales Outside Tasmania
	No.	Mean	No.	Mean
Clothing & footwear	1	100	8	63
Transport equipment	1	100	21	24
Basic metal products	4	98	11	-
Textiles	5	87	9	-
Wood, wood products & furniture	10	75	67	24
Paper, paper products publishing & printing	6	65	27	-
Food & beverage products	19	56	54	7
Chemical, petroleum & coal products	9	42	21	-
Industrial machinery & equipment	3	34	41	11
Non-metallic mineral products	7	8	42	25
Fabricated metal products	13	8	38	4
Miscellaneous manufacturing	7	2	35	15
<b>Total Manufacturing</b>	<b>85</b>	<b>56</b>	<b>374</b>	<b>14</b>

Source: Tasmanian Manufacturing Survey, 1986

Figure 3.15: Full and Part-Time Employment by Market Orientation of Tasmanian Enterprises, 1985



Source: Tasmanian Manufacturing Survey, 1986

**Table 3.13: Regional Distribution of Tasmanian Manufacturing Employment, 1985 <sup>1</sup>**

Ownership	Southern & Eastern Tasmania				North & N.E. Tasmania				N.W. & Western Tasmania				Total Tasmania			
	Ent. <sup>2</sup>	Estab. <sup>3</sup>	Employment No.	%	Ent.	Estab.	Employment No.	%	Ent.	Estab.	Employment No.	%	Ent.	Estab.	Employment No.	%
4 Largest <sup>4</sup>	2	3	3,419	30.3	1	3	1,471	18.2	1	7	2,482	32.5	4	13	7,372	27.3
Non-Local	30	65	3,171	19.2	31	62	3,569	44.2	20	52	2,506	32.8	81	179	9,246	34.2
Local	188	297	4,687	50.5	107	152	3,020	37.6	79	122	2,642	34.7	374	571	10,349	38.5
Total	220	365	11,277	100.0	139	217	8,060	100.0	100	181	7,630	100.0	459	763	26,967	100.0

<sup>1</sup> A map of the three regions is provided in Figure 2.1

<sup>2</sup> Enterprises

<sup>3</sup> Establishments

<sup>4</sup> APPM, ANM, EZ and Comalco

Source: Tasmanian Manufacturing Survey, 1986

(4,687 persons), accounting for over one-half of the manufacturing workforce. APPM, ANM, and EZ control 30.3 per cent of manufacturing employment while other non-locally owned operations employ only 19.2 per cent of the region's manufacturing workforce.

The current structure of Tasmania's manufacturing economy is thus one in which a major share of the factory workforce is employed by a few large non-locally owned enterprises engaged in resource-based processing for export markets. The state's indigenous enterprises, predominantly small in scale, are largely producing non-resource based products for the Tasmanian market. Consequently, direct competition between non-locally owned and indigenous enterprises within the local market occurs in only a few industries such as fabricated metal products, non-metallic mineral products, and plastics manufacturing.

Given this general introduction to the structure of the state's manufacturing economy, the following chapter focuses more intensively upon the local processes underlying power relationships within and between manufacturing enterprises in Tasmania.

## **CHAPTER 4**

### **ENTERPRISE RELATIONSHIPS WITHIN TASMANIAN MANUFACTURING**



The objectives of this chapter are to examine the organisational and power relations between enterprises, and between establishments of multi-site manufacturing enterprises in Tasmania. As indicated in section 2.7, all indigenous and non-locally owned multi-site Tasmanian enterprises were included in the manufacturing survey. In defining the organisational relations between establishments of multi-site operations, the spatial structure of multi-site enterprises is first identified in relation to enterprise ownership, and to the location of Tasmanian head offices and their affiliated establishments throughout the state. After establishing the general spatial structure of multi-site enterprises at an aggregate level, a more detailed investigation is made into the dominant operational structures of multi-site firms and the functional linkages between individual establishments within Tasmanian enterprises. The identification of these dominant operational structures helps to establish the causal relationships which influence the behaviour of multi-site firms within the study area, as the structures ultimately reflect a balance between the goals of enterprise management and the constraints imposed by the capitalist system in which firms are operating. Power relations between Tasmanian head offices and affiliated establishments are assessed on the basis of operational autonomy, the control over operating resources, and shifts in functional responsibilities between establishments between 1980 and 1985.

Operational and power relationships between enterprises focus upon subcontract, franchise, licence and market arrangements within Tasmanian manufacturing. Discussion centres upon the extent of such arrangements within the state's manufacturing sector, the strategies behind these relations, and the power networks which emerge from them.

Evidence from the manufacturing survey indicates that a much higher percentage of non-locally owned than indigenous manufacturing firms operate from more than one

establishment in Tasmania. Among most indigenous and non-locally owned multi-site enterprises, activities outside manufacturing account for a large portion of their total income. The processes by which multi-site enterprises were established, and the market strategies they are presently following, are markedly different between indigenous and non-locally owned firms. While the largest number of both indigenous and non-locally owned multi-site operations are oriented toward the local market, indigenous branch establishments are usually located in the region in which the Tasmanian enterprise is headquartered, while branch establishments of non-locally owned enterprises are more often located outside the Tasmanian head office region. In general, the focus of most indigenous multi-site firms upon their headquarters region reflects the fact that most of these firms were initially established as single-site operations selling within only one of the state's three regional markets. On the other hand, most non-locally owned multi-site enterprises were initially established as multi-regional operations to service the entire state market.

An examination of power relations between branch establishments and their Tasmanian head offices indicates that the majority of both indigenous and non-locally owned branch managers have very little control over their own establishment. Most branch establishments are small and functionally dependent upon their Tasmanian head office. The nature of operational and power relations between enterprises in Tasmania demonstrates that most firms engaged in subcontract, franchise and licence activities are not reliant upon such arrangements for a major portion of their total income. In addition, most of these relations are between small or medium-sized enterprises, and power linkages between small and large firms are of little importance.

#### **4.1 RELATIONSHIPS BETWEEN ESTABLISHMENTS WITHIN LOCALLY OWNED MULTI-SITE ENTERPRISES**

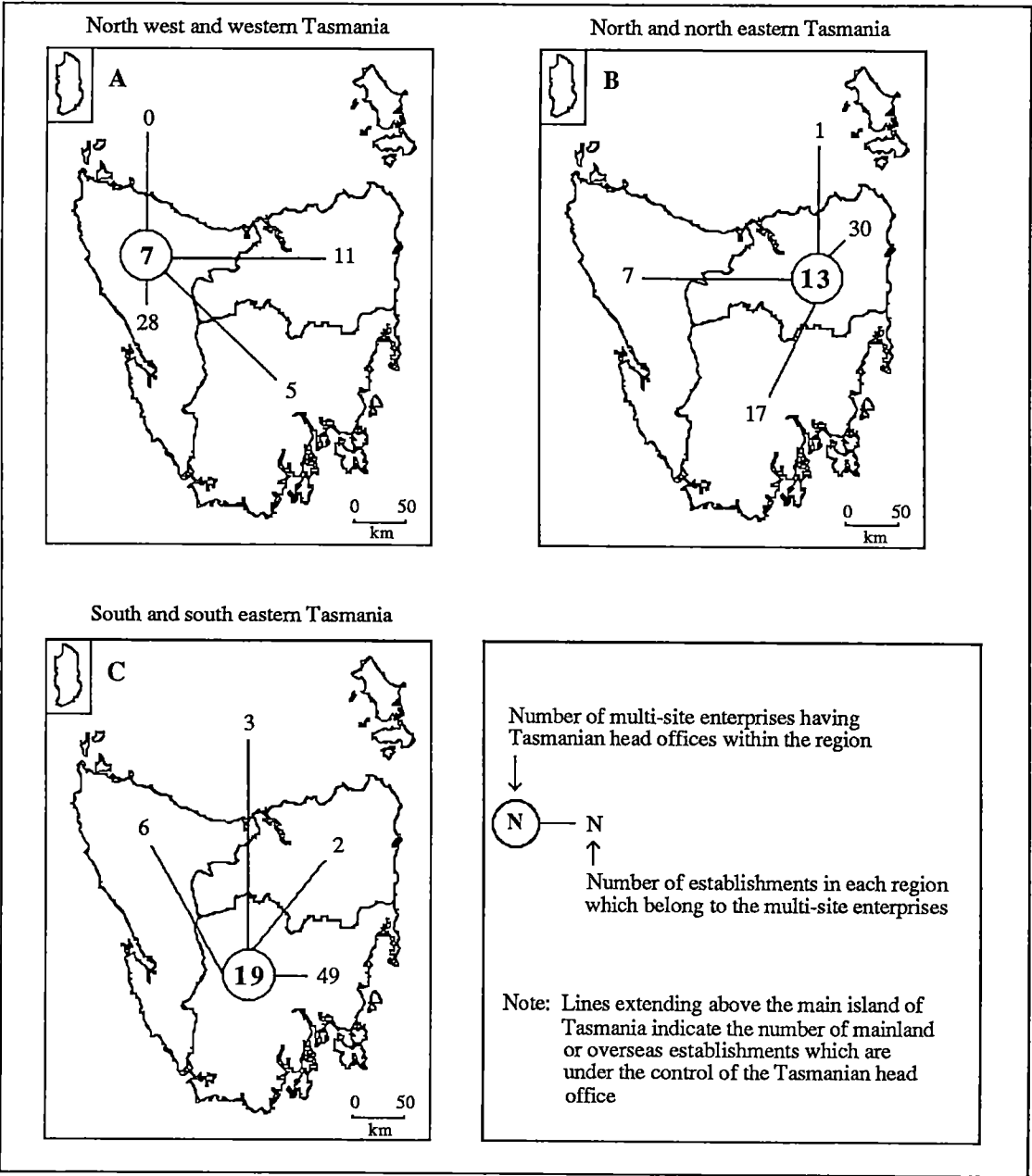
##### **4.1.1 Spatial Structure of Operations**

The survey of Tasmanian manufacturers indicates that 10.4 per cent (N=39) of all locally owned manufacturing enterprises are multi-site operations. Together, these

enterprises control over one-quarter (N=159) of all establishments and 41.3 per cent of employment within Tasmania's indigenous manufacturing sector. The largest number of multi-site operations (N=19) are headquartered in the Hobart metropolitan area (Figure 4.1C). Of these enterprises, nine function as dual establishment operations and only eight enterprises have establishments located outside the southern region of the state. The largest number (N=6) of external establishments are located in the north west region, only two are located in Launceston, a further two operate in Melbourne and one is located in Singapore. Of the 13 multi-site enterprises in Launceston, nine have establishments located outside the northern region (Figure 4.1B). Eight of these enterprises operate 17 establishments in southern Tasmania while six enterprises account for the seven establishments located in the north west. Only one establishment, operating in Melbourne, is located outside the state. Of the seven multi-site enterprises based in the north west, four operate outside the region. The largest number of these external establishments (N=11) are in Launceston, and a further five are located in Hobart (Figure 4.1A).

The establishments of the state's 39 indigenous multi-site operations are thus strongly tied to the region in which the Tasmanian enterprise head office is located. In particular, 82.8 per cent of all establishments controlled by southern-based enterprises, and 63.6 per cent of all establishments controlled by enterprises headquartered in the north west, are located in the respective local region (Table 4.1). Establishments of multi-site enterprises headquartered in Launceston are rather less dependent upon the immediate local market as only just over one-half of all establishments are located in the northern region. Launceston's geographic position clearly favours access to markets in Hobart and the urban centres in the north west region, especially given Launceston's role as one of Tasmania's major port and distribution centres. In addition to the strong regional dependence of the state's indigenous multi-site enterprises, there is an even greater dependence upon Tasmania as the only state in which establishments are located. Of the 159 establishments controlled by the 39 multi-site enterprises, less than 1 per cent (N=4) are situated outside the state. The virtual lack of establishments located outside Tasmania is not surprising given the small size of most indigenous enterprises. Ten of the 39 multi-

**Figure 4.1: Establishment Structure of Locally Owned, Multi-Site Enterprises in Tasmania**



Source: Tasmanian Manufacturing Survey, 1986

**Table 4.1: Regional Concentration of Establishments Among Locally Owned Multi-Site Enterprises**

Location of Tasmanian Head Office	Enterprises Tasmania	Establishments		<u>% of Total Establishments Located In</u>			Total Tasmania and Mainland
		Tasmania	Mainland	NW/W	N/NE	S/SE	
N.W. & Western Tasmania	7	44	0	63.6	25.0	11.4	100.0
North & N.E. Tasmania	13	54	1	13.5	55.0	31.5	100.0
South & S.E. Tasmania	19	57	3	10.5	3.7	82.8	100.0
Total	39	155	4	25.7	27.0	44.6	100.0

Source: Tasmanian Manufacturing Survey, 1986

site enterprises employ fewer than 26 persons, and all but 12 employ fewer than 100. Consequently, many branch establishments are extremely small, employing only a few people. Over one-half of all establishments do not even employ full-time office staff, as managerial and clerical functions within most small enterprises are centralised at the Tasmanian head office location (Table 4.2).

#### Functions Undertaken in Tasmania

While all 39 multi-site enterprises are dependent upon manufacturing for at least one-quarter of their total income, many are engaged in a much wider range of activities. On average, manufacturing accounts for 78 per cent of the total income received by these enterprises, and only one-third of all enterprises (N=13) are engaged solely in production activities. Of the 159 establishments, only 58 per cent (N=92) are directly involved in manufacturing (Table 4.2). Other key functions performed by the enterprises include retailing and service-related activities such as installation, repair and maintenance. Once again, this reflects the small size and low degree of specialisation among the state's indigenous multi-site enterprises. Over 70 per cent of enterprises and 40 per cent of establishments are engaged in retail activities. Although most establishments involved in retailing are primarily marketing products manufactured by the Tasmanian enterprise, many supplement the range of products available by selling goods purchased on the mainland or overseas. In addition to retailing, more than 70 per cent of enterprises and 45 per cent of establishments are engaged in installation, repair or maintenance activities for the public (Table 4.2). Tasmania's indigenous multi-site enterprises are clearly oriented towards the production and sale of existing products, as only one enterprise, a large dairy products firm based in Devonport, is engaged in research and development on a regular basis.

The following paragraphs provide a more intensive investigation into the processes behind the current structure of locally owned multi-site enterprises in Tasmania. While the historic processes which brought about the current structure of multi-site operations vary enormously among individual enterprises, a detailed knowledge of each firm's activities

**Table 4.2: Functions Undertaken by Locally Owned, Multi-Site Enterprises in Tasmania**

Function	Location of Tasmanian Head Office			
	N.W. & Western	North & N.E.	South & S.E.	Total Tasmania
<b>Manufacturing</b>				
Enterprises				
No	7	13	19	39
%	100	100	100	100
Establishments				
No	24	27	41	92
%	54	49	68	58
<b>Administration/Clerical</b>				
Enterprises				
No	7	13	19	39
%	100	100	100	100
Establishments				
No	26	20	22	68
%	59	36	37	43
<b>Retailing</b>				
Enterprises				
No	7	9	12	28
%	100	69	63	72
Establishments				
No	14	27	28	69
%	32	49	47	43
<b>Wholesaling</b>				
Enterprises				
No	1	4	1	6
%	14	31	5	15
Establishments				
No	4	9	1	14
%	9	16	2	9
<b>Installation/Maintenance</b>				
Enterprises				
No	5	8	14	28
%	78	64	72	71
Establishments				
No	27	22	26	75
%	61	40	43	47
<b>Research &amp; Development</b>				
Enterprises				
No	1	-	-	1
%	14	-	-	2
Establishments				
No	1	-	-	1
%	2	-	-	-
<b>Transport/Distribution</b>				
Enterprises				
No	5	4	4	13
%	71	31	21	33
Establishments				
No	14	6	5	25
%	32	11	8	16

Source: Tasmanian Manufacturing Survey, 1986

enables the identification of the dominant operational structures of multi-site enterprises. These operational structures reflect the motives and abilities of enterprise management, as well as the constraints imposed by the particular capitalist environment within which the enterprise operates. In Tasmania, both the motivation of management within multi-site enterprises and the opportunities for physical expansion are influenced by the character of the state's economy. In particular, the small size and physical separation of Tasmania's three regional markets, and the separation of Tasmania from mainland markets have a major influence (see section 3.2). For many of Tasmania's indigenous enterprises, inter-regional or inter-state expansion is beyond the financial means of the firm. Other enterprises which could finance such development may decline to do so as management may perceive the geographic dispersion of activities as a threat to their ultimate control over the organisation. Given the small size of the state's regional markets, the continued growth of multi-site enterprises usually necessitates either physical expansion or market development outside the immediate local region. The identification of the current operational structures among multi-site enterprises thus represents a most useful reference point from which to understand the goals of enterprise management and their limitations given the present structure of Tasmania's capitalist environment. Discussion highlights these structures and their prevalence among multi-site enterprises.

#### **4.1.2 Operational Structures of Locally Owned Multi-Site Enterprises**

The operational structures of Tasmania's 39 indigenous multi-site enterprises are defined on the basis of autonomous operating segments within each firm. While most enterprises are small and can be identified on the basis of a single dominant structure, eight of the larger enterprises are organised on the basis of a divisional structure in which separate operating segments follow different strategies. Thus, discussion centres upon 31 enterprises with a single dominant strategy and 16 decision-making divisions in the eight larger enterprises. These 47 semi-autonomous decision-making units will be referred to as operating segments.



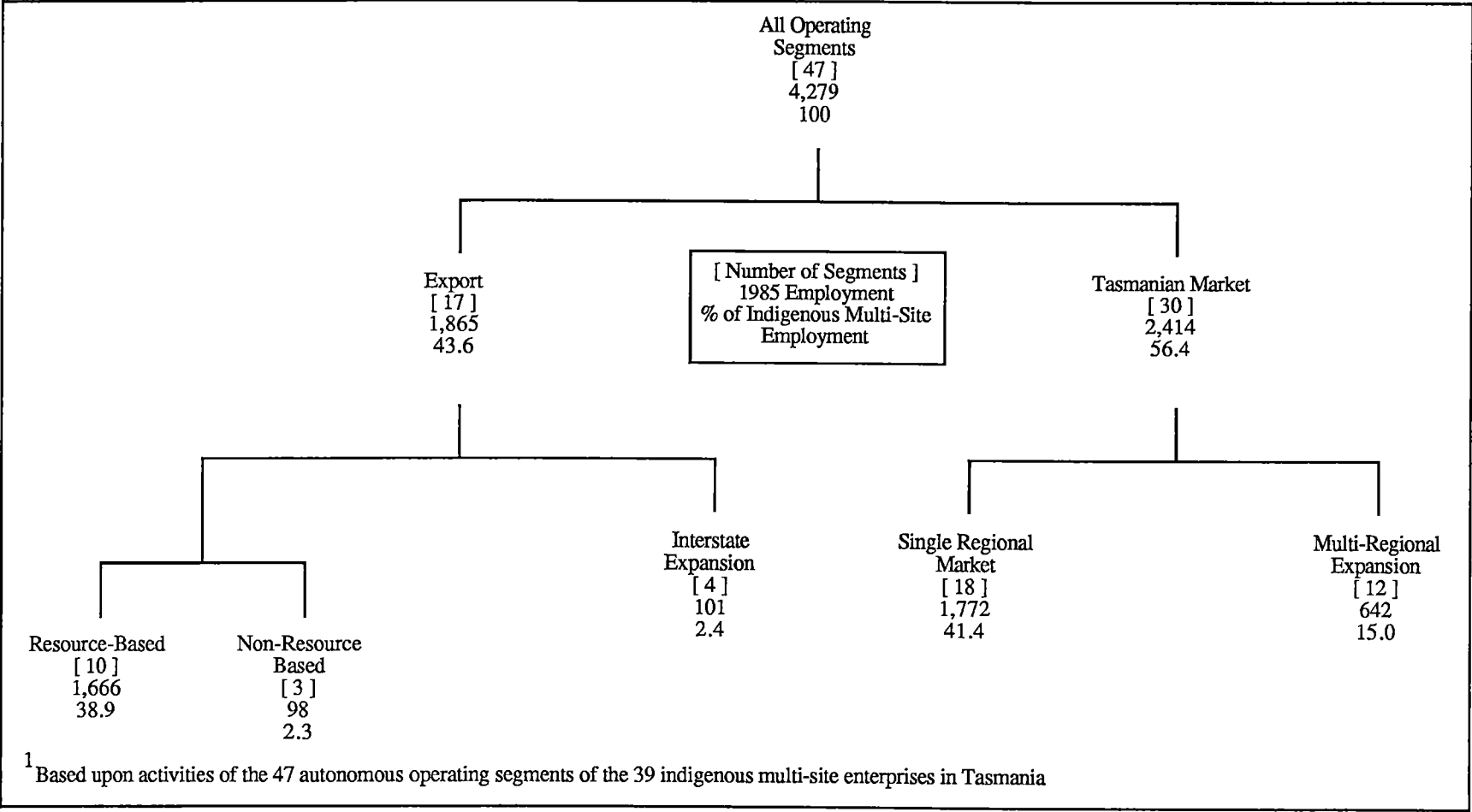
From this current population of indigenous multi-site enterprises, five dominant operational structures are identified from the questionnaire responses. The primary factor distinguishing these structures is the degree to which Tasmanian manufacturing enterprises are reliant upon sales within the state. In total, 77 per cent (N=30) of all operating segments, employing 2,414 persons, are largely dependent upon sales within Tasmania (Figure 4.2). Two operational structures, single regional market and multi-regional expansion, further differentiate these locally-oriented segments. Among the 17 segments oriented towards export sales, three dominant structures are identified. They are segments engaged in resource-based activity, those engaged in non-resource based production, and those segments which have set up establishments outside Tasmania.

#### Single Regional Market

Almost one-half of the indigenous multi-site segments (N=18) operate in a single regional market. Together, these segments employ 40 per cent (N=1,772 persons) of the total workforce within Tasmanian-based, multi-site operations. These segments manufacture products in only one of the state's three market regions, and are dependent upon sales within that region for virtually all income received. Although these enterprises are similar in terms of their dependence upon a single regional market, there is considerable variation in the types of processing and marketing which is undertaken. Specifically, four dominant operational structures exist among enterprises trading within a single regional market (Figure 4.3).

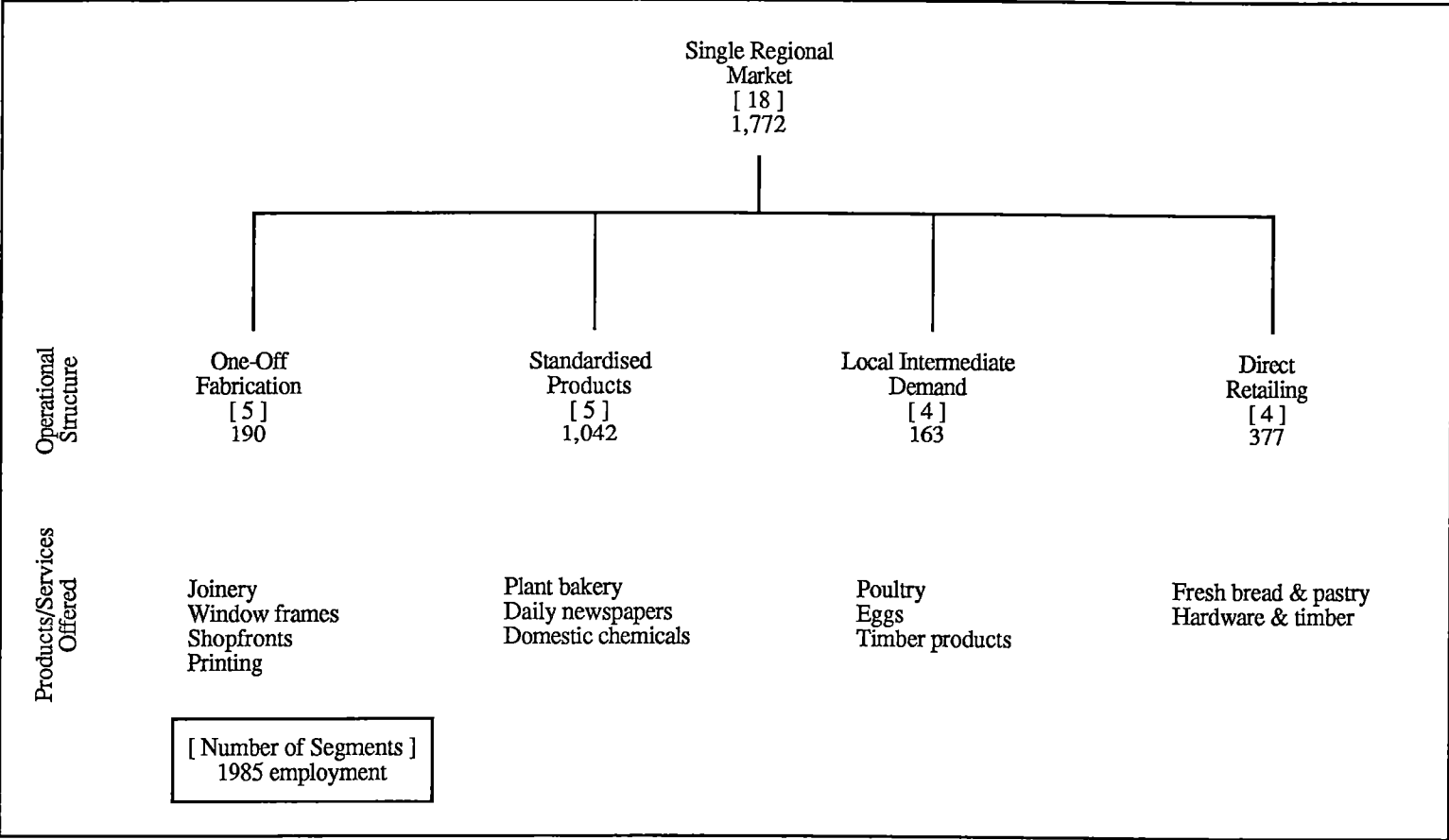
First, five enterprises are primarily engaged in one-off fabrication of unstandardised products. These include firms producing joinery and school clothing in the north west region, aluminium windows in Launceston and commercial artwork and shopfittings in Hobart. Each enterprise is small, skill-based, service-oriented and requires relatively low levels of investment in fixed capital to maintain its production activities. Serving a final demand market, each of these enterprises is also involved in the direct retailing of its products. Three of the five firms have separate retail establishments while the other two sell out of their factory locations. All but one enterprise is a family business, owned and

Figure 4.2: Dominant Operational Structures of Locally Owned Multi-Site Enterprises in Tasmania<sup>1</sup>



Source: Tasmanian Manufacturing Survey, 1986

Figure 4.3: Minor Operational Structures Within Locally Owned Multi-Site Enterprises Operating in a Single Regional Market



Source: Tasmanian Manufacturing Survey, 1986

operated by either its founder or a second generation family member. Although each enterprise has expanded to become a multi-site operation, many of the owners reported that they are satisfied with profits available within the regional market. A strategy of growth, by expansion into more distant markets, is unlikely to be adopted by these enterprises.

Second, five multi-site enterprises are manufacturing standardised products for the regional market in which they are based. These include the largest plant bakery in the north west region, regional newspapers in each of the three major regions of the state and a manufacturer of household and industrial chemicals in Hobart. Each of these enterprises, large in terms of both employment and fixed capital investment, has a strong historical association within its respective region; the bakery in the north west and the three regional newspapers were all established prior to the Second World War. The bakery, founded in Burnie, has since established a second production facility in Devonport. Although each of the three regional newspapers has establishments located in other regions of Tasmania, they are small and involved only in gathering local news and advertising which forms a very minor part of the paper's content. The chemical manufacturer operates two workshops in Hobart which predominantly employ handicapped persons. The firm's manager indicated that strong competition in markets outside the region has made a strategy of multi-regional expansion virtually impossible, and has limited product sales to the Hobart area where marketing, distribution costs and production deadlines are within the means of the operation.

Third, four multi-site enterprises are primarily manufacturing products for sale to retailers within their local region. These comprise a small chicken processor and egg farm near Hobart, and three timber operations near Launceston. The fourth group of indigenous multi-site operations trading within a single regional market is oriented toward direct retailing in the Hobart area. The group includes a bakery which has established four hot bread shops in the Hobart area, and three divisional segments of large indigenous sawmilling operations which are involved in hardware and timber retailing.

Although the types of industries and range of activities undertaken varies between segments operating within a single regional market, they each share a common focus upon the local region in which they are based. Information gained during the interviews indicates that, except for the bakery and three sawmills primarily engaged in retailing, the 18 segments currently serving a single regional market are unlikely to locate additional establishments outside their head office region. For most of these segments, managers indicated that branch operations have simply been established as a means to alleviate a lack of space at the original head office location, and do not reflect a general desire by management markedly to expand the scale of operations within the region. The southern-based retail segments have been successful in gaining a profitable share of their respective markets. While not closing off the option of expansion in Launceston or the north west region in the future, managers of these segments reported that they did not have any plans to establish operations outside the Hobart area in the foreseeable future. In particular, expansion by southern-based hardware and timber retailers into northern Tasmania was seen as difficult as there already exists a large indigenous enterprise serving Launceston and much of the north west regional market.

#### Multi-Regional Expansion

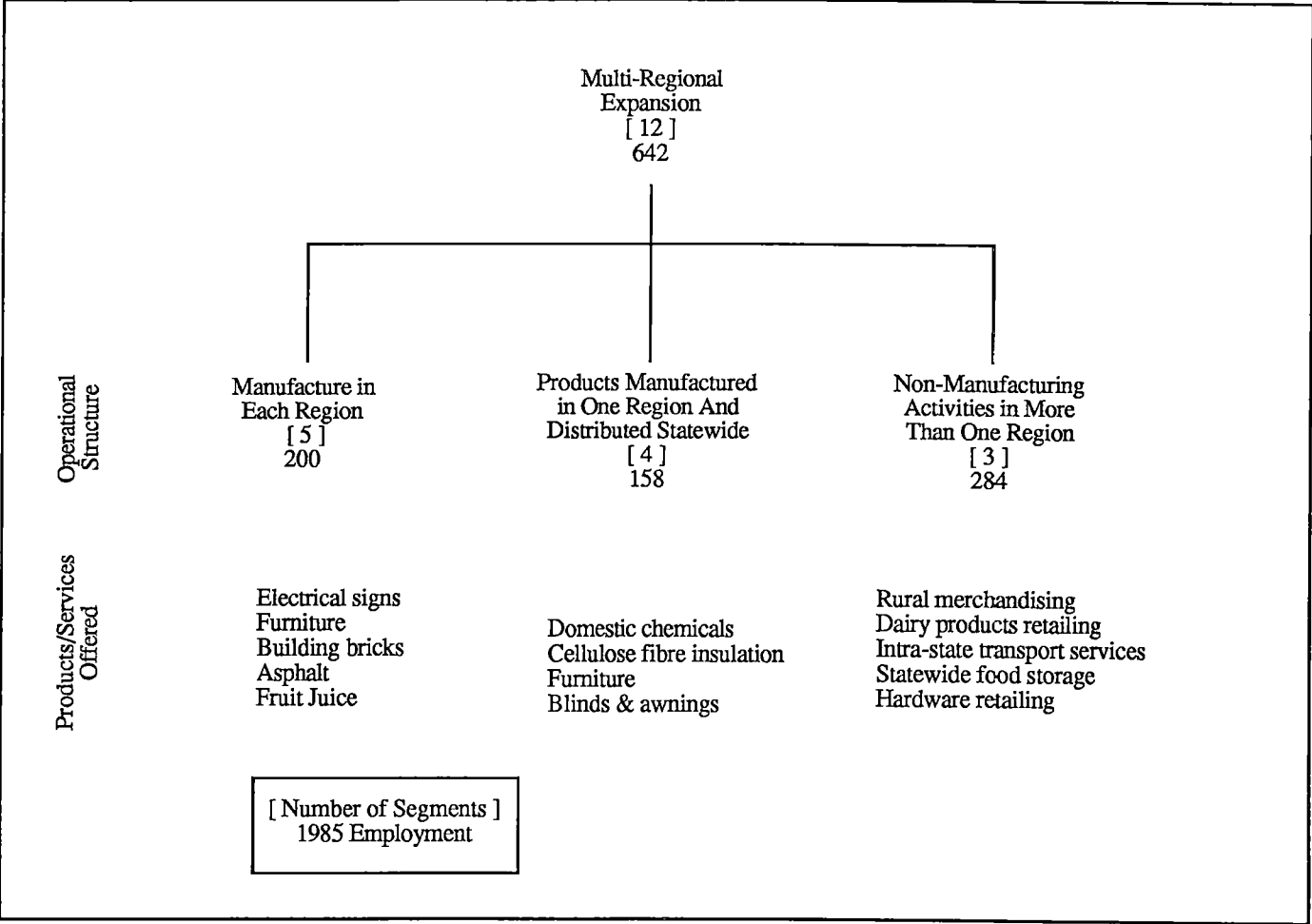
Twelve indigenous enterprises have expanded from a single to a multi-regional operation (Figure 4.2). Most of these enterprises began as single-site operations serving a single regional market, and through subsequent expansions have established operations in at least one of the other two regional market areas in Tasmania. Although physical expansion has taken place, marketing is still concentrated within Tasmania as multi-regional expansion has provided a strategy by which firms could secure a larger share of the state market. Multi-regional expansion among the current population of indigenous enterprises is a relatively recent phenomenon, with all 12 enterprises expanding from single-region operations in only the last 15 years. In fact, seven of the 12 enterprises have only become multi-regional operations since 1980. Given the limited size of the market in each of the state's three regions, most branches which have been established outside the

head office region are small, functionally dependent upon the Tasmanian enterprise head office, and engaged in a number of activities in addition to manufacturing.

Among the 12 enterprises having establishments in more than one region, three operational structures are identified (Figure 4.4). First, five enterprises have established manufacturing operations in each of the regions in which they are located. Two of these enterprises, a manufacturer of cement building bricks and an asphalt company, are located in each of the state's three regions. For these enterprises manufacturing is based upon bulk usage of local raw materials within each region. While the asphalt company tenders primarily for government contracts, the manufacturer of building bricks sells a large share of its products within the home building market. Consequently, each of its four establishments throughout Tasmania is also engaged in direct retailing. The remaining three enterprises manufacture within two regions of the state. These are a small electrical sign company with its head office in Launceston, and a furniture manufacturer and a firm manufacturing fruit juice which have their headquarters in Hobart. Each of these enterprises has expanded into a second regional market since 1980, employing only a few persons at their branch location. In the case of the Hobart-based fruit juice company, multi-site operations commenced in 1985 when it bought out a mainland-based enterprise operating in Launceston. In addition to securing a greater share of the northern fruit juice market, the purchase enabled the indigenous firm to acquire established statewide supply contracts held with Tasmania's largest food retailer, Coles-Myer Ltd.

The second operational structure comprises four segments which manufacture in only one region, and then distribute their manufactured products to establishments in other regions which then install, retail, or distribute them locally. The manufacturing base of all four of these segments is located in Launceston. Products manufactured by these enterprises include household chemicals, cellulose fibre insulation, awnings, canvas products, and furniture. Typical of these enterprises is the Launceston company which began producing steel office furniture for the local region in 1947. Subsequent expansion was gradual, with the enterprise diversifying into wooden furniture in 1963 and lounge and school furniture in 1971. By the mid-1970s the enterprise employed 40 persons in its

Figure 4.4: Minor Operational Structures Within Locally Owned Multi-Site Enterprises Having Establishments in More Than One Tasmanian Region



Source: Tasmanian Manufacturing Survey, 1986

Launceston factory, and supplied a large share of the local furniture market. Following its strategy of product diversification within the Launceston market, the family owned company undertook multi-regional expansion by establishing retail showroom facilities in Hobart in 1979, and in Burnie in 1982. Both showrooms have since been expanded and together currently account for over 40 per cent of the company's statewide turnover. Success achieved through multi-regional expansion and direct retailing has also encouraged the enterprise to supplement its own product range with furniture produced by manufacturers on the mainland. By 1985, the Launceston factory employed over 70 persons, with a further 20 persons employed in retail and distribution throughout Tasmania. While there has been a great deal of market success throughout Tasmania, the enterprise continues to sell only within the state. Characteristic of most family owned and operated enterprises in Tasmania, the family has no interest in establishing operations on the mainland or overseas, as the profits available within the state are viewed as sufficient. In terms of Håkanson's conceptualisation of firm growth, the limits to the rate of expansion realised by this enterprise are set largely by the managerial constraints imposed by the owner-manager (Håkanson, 1979, p. 122-23; see section 6.1.1).

The third operational structure among indigenous multi-regional enterprises serving the Tasmanian market contains three non-production segments of large indigenous manufacturing operations. The parent companies to which these segments belong are primarily engaged in the manufacture and export of resource-based products such as timber, processed fruit, and dairy produce. Within Tasmania each enterprise is also engaged in one or more non-production activities including storage, transport, retailing, wholesaling and commercial investment. In each of the three enterprises these non-production activities are incorporated into operating divisions in which autonomous management and reporting structures are organised. In one such enterprise, the state's largest indigenous dairy products operation, a separate retail sales division was established in 1981 to supply agricultural machinery, farm supplies, and discounted dairy produce to rural markets within the enterprise's milk supply region. The division is based at the enterprise head office in Devonport and includes four retail outlets throughout north and



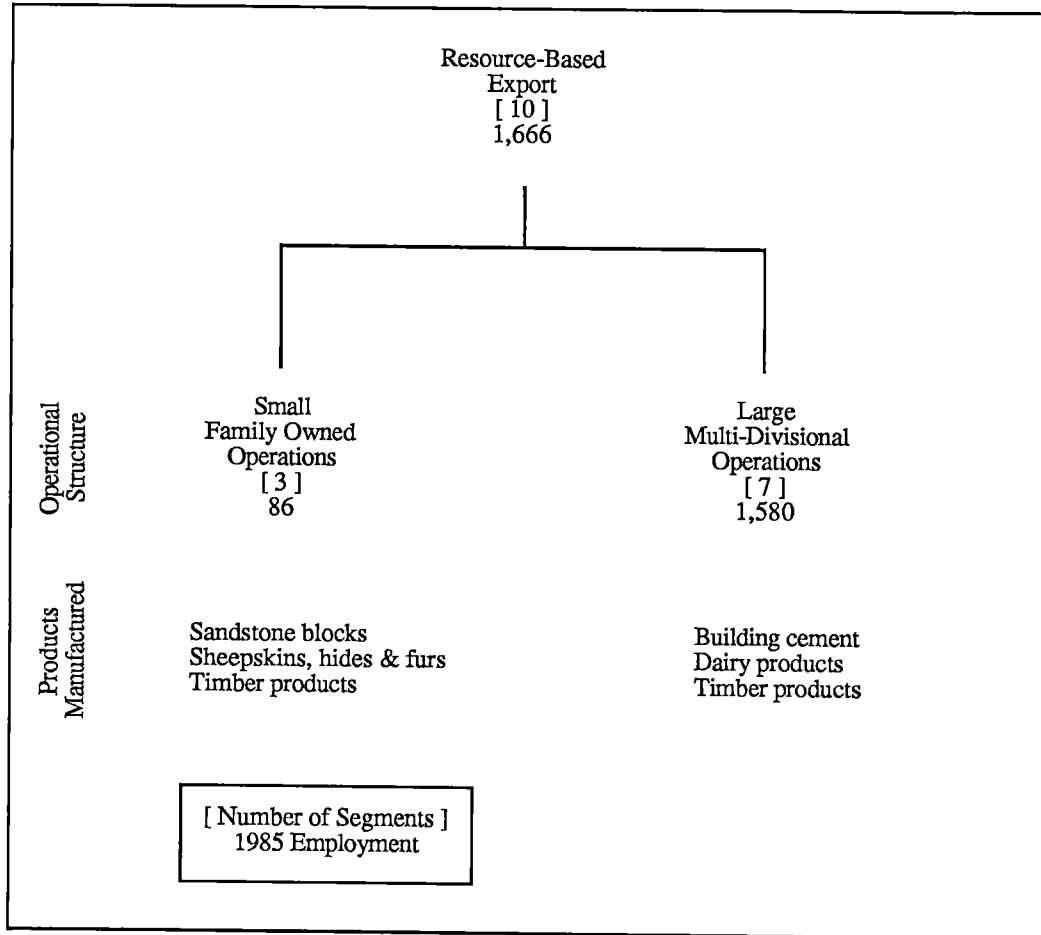
north western Tasmania. Each outlet is small (employing fewer than 10 persons) and two of the four trading establishments share a building with coolstores, also operated by the enterprise in the northern part of the state. During the interview with senior management, the enterprise's managing director stated that the company's strategy of expanding its non-production activities within its milk supply region was designed both to encourage greater interaction between the enterprise and the local rural community, and to enable the company to diversify into a profitable trading environment where risks are minimised due to the low requirement for capital investment and a strong familiarity with the market. By 1985, annual trade sales within northern Tasmania exceeded \$5 million, over 8 per cent of the enterprise's total turnover.

#### Resource-Based Export

Of the 17 indigenous multi-site enterprises manufacturing for export markets, 10 are largely engaged in resource-based production activities (Figure 4.2). Together, these 10 enterprises employ nearly 39 per cent (1,666 persons) of the workforce of all indigenous multi-site enterprises. Utilising local timber, non-metallic minerals, and various agricultural-based resources, most enterprises produce and export semi-processed materials for use by other manufacturers or building contractors in mainland and overseas markets. A large share of the sales contracts are held with wholesalers on the mainland, particularly among enterprises producing sawn timber products for sale in Victoria. Among the 10 resource-based enterprises, two operational structures are identified (Figure 4.5)

Three enterprises are small family owned operations engaged in different activities, including timber production, the manufacture of sandstone blocks, and the processing of sheepskins, hides and furs. For each of these enterprises, growth is limited by the availability of both physical resources and managerial expertise needed to develop additional product lines or enter into new market areas. The Hobart-based processor of sheepskins, hides and furs commenced operations in 1931, utilising the by-products of local abattoirs, and furs supplied by local hunters. Selling primarily to mainland

**Figure 4.5: Minor Operational Structures Within Locally Owned Multi-Site Enterprises Manufacturing Resource-Based Products for Export Markets**



Source: Tasmanian Manufacturing Survey, 1986

customers, the company expanded by establishing storage facilities in Burnie (1945) and Devonport (1970), and a second processing establishment near Launceston in 1947. Until the late-1960s, trading conditions were extremely stable, enabling the company to expand into several foreign markets including Japan and Western Europe. Since 1970, however, profits have been highly erratic due to fluctuating market prices, interruptions in the supply of material inputs, and rapidly increasing wage costs. In 1972 and again in 1981, the company was forced to dump over 30,000 skins as production costs exceeded f.o.b. prices. Moreover, the number of skins and furs available in Tasmania has decreased since 1970. During the interview with enterprise management, the company's chief executive stated that a lack of managerial expertise has kept the company from expanding into new products, such as tanned hides, having a higher value-added component.

The manufacturer of sandstone blocks employs only seven full-time persons at two quarry sites in southern Tasmania. The owner-manager spends most of his time working as a free-lance accounting consultant to businesses in Hobart, and considers the sandstone operation as little more than a hobby. Consequently, the volume of sales is kept to a level where no more than seven employees are required at any one time. Most of the sandstone produced is purchased on a one-off basis by residential building contractors in Melbourne and Sydney which cater to the luxury building market. A small amount is also sold in Tasmania. In recent years the owner of the enterprise has refused to accept several large (and potentially lucrative) orders from customers on the mainland as they would have both occupied more of the owner's time than he was willing to give, and exceeded the production capabilities of the operation as it is presently structured.

The remaining seven multi-site enterprises exporting resource-based products are large multi-divisional operations manufacturing cement, dairy products, or sawn timber. Four of these enterprises are publicly owned, and all seven contain multi-site divisional segments which operate in Tasmania to sell to the local markets. Specifically, three enterprises based in the north west and one enterprise based in Launceston contain either a manufacturing or retail segment operating in only a single region market. All but one of the seven enterprises were established prior to 1940, and the remaining enterprise was

formed in 1980 following the amalgamation of three major dairy co-operatives in northern Tasmania. For each enterprise, continued success as an exporter of resource-based products provided the capital necessary for diversification within the Tasmanian market. Much of this diversification has been in areas other than manufacturing, as difficult trading conditions for most resource-based activities since 1970 have encouraged management to divert capital resources away from their historical production base. In particular, enterprises manufacturing products such as cement and timber for the building industry have experienced substantial volatility of demand in recent years due to massive fluctuations in the mainland construction market. Moreover, the future availability of sawn timber resources is being questioned given the current low rate of eucalypt regeneration, and the potential for increased pulpwood utilisation by the large paper manufacturers APPM and ANM which already control much of the state's timber resources (see section 3.3.3). This has discouraged long-term commitments to further forest-based production by many of the indigenous timber companies. Efforts within manufacturing have concentrated on market development and increased labour productivity rather than on capital injection aimed at increasing production.

#### Non-Resource Based Export

Of the 17 indigenous multi-site enterprises which predominantly export their manufactured products, only three are engaged in non-resource based production (Figure 4.2). Two of these enterprises, a manufacturer of steel boats and a firm producing specialised brass fittings, are based in Launceston. The third enterprise, a marine engineering company, is located near Hobart. Each of these enterprises was established as small family-owned businesses during the mid-1960s, and was initially oriented toward product sales in Tasmania. Each enterprise has since developed a particular specialisation in manufacturing which has enabled it to capture market niches outside the state. Since each of these enterprises employs fewer than 40 persons in production activities, success in export markets has largely developed from management being able to identify profitable market segments and ensure high quality production within the limited range of products

produced. Both the manufacturer of steel boats and the marine engineering company operate from two establishments located within their head office region. Within each enterprise, the larger establishment is primarily involved with manufacturing for export markets while the other provides a limited range of one-off marine services and light manufacturing to customers in the local market.

Of these two operations, the Launceston-based family enterprise manufacturing and exporting brass fittings and locks has undergone much greater expansion within the Tasmanian market. Although over one-half of the enterprise's total turnover is from sales of locally produced products to mainland customers, a separate division within the company has expanded to become a multi-regional operation within Tasmania. The division operates five locksmith establishments throughout the state which each services its immediate local market. In addition, each establishment acts as a wholesale and retail outlet for the Launceston manufacturing plant which purchases and distributes a wide range of products from mainland and overseas producers as well as retailing its own goods. Notwithstanding the expansion which has taken place, the business has retained its strong family-based controlling interest. Of the eight establishments operating throughout Tasmania, only one site manager is not a member of the original family which started the business in 1967.

#### Interstate Expansion

While over 40 per cent (N=17) of Tasmania's indigenous multi-site enterprises have grown to the point where they are largely dependent upon sales of manufactured goods in markets outside the state, only four enterprises have actually located establishments on the mainland or overseas (Figure 4.2). Three of these enterprises, a large timber company based in Launceston, and a furniture company and electrical heating firm both based in Hobart, each have one establishment located in Melbourne. The trading division within the Launceston-based timber company opened a Melbourne retail outlet in 1984, following its success as a retailer in the north and north west of Tasmania. The company's manager stated that expansion took place in Melbourne rather than in Hobart because the hardware

and timber market in southern Tasmania was already serviced by a number of large firms. The Melbourne establishment, employing 14 persons, sells both Tasmanian and mainland produced timber, and a wide range of home hardware goods produced by other companies. Rather than being driven by a deliberate strategy of capturing a share of the Victorian market per se, both Hobart-based enterprises established operations in Melbourne only after a family member decided to move interstate for personal reasons. In each case the person wanted to retain his association with the Tasmanian family business, and consequently opened a branch office in Melbourne.

The fourth enterprise, Hobart's major newspaper and publishing company, established a joint venture colour sign operation in Singapore, in 1984. Directly responsible to the enterprise's colour sign division near Hobart, the establishment in Singapore commenced operations with only 15 persons manufacturing signs for the local market. Using a unique colour printing process developed in Tasmania, it is hoped that success in the Asian market will eventually enable the division to expand into lucrative US, Japanese and European markets.

### Summary

The five dominant operational structures outlined in the preceding paragraphs provide a detailed account of the motives behind the state's locally owned multi-site enterprises. Both the organisational structure of these enterprises and the strategies they are following highlight the importance of small family owned manufacturing operations trading within the Tasmanian market, and resource-based enterprises processing local timber, non-metallic minerals and agricultural products for sale in export markets. Only a few enterprises are manufacturing non-resource based products for markets outside the state. For most enterprises, multi-site expansion has been limited to the region in which their Tasmanian head office is located. While twelve enterprises have expanded beyond their head office region within Tasmania, growth has largely been in areas other than manufacturing. Quite clearly, most managers of smaller multi-site enterprises prefer to operate in, or are unable to expand beyond, single region markets in which they initially

developed. The fact that only four enterprises have located establishments outside the state indicates a general reluctance among many manufacturers actively to market their products interstate, and the inability of some firms to obtain the financial resources necessary for interstate expansion. Enterprises serving the Tasmanian market are largely content with locally available profits, and most firms exporting resource-based products are satisfied with their continued dependence upon wholesale agents outside the state.

While each of the 39 enterprises has expanded to become a multi-site operation, the largest number of firms remain within what Håkanson describes as the first stage of the corporate growth process, in which the decision to establish branch plants is often forced by a shortage of either factory space or locally available material inputs (Håkanson, 1979, p. 132). In most cases, enterprises have dealt with such problems by locating a branch establishment in the same region as the enterprise head office. A fewer number of enterprises have entered into Håkanson's second stage of corporate growth in which branch plants are located outside the head office region as part of a more aggressive strategy of market development. In most cases, expansion outside the head office region has been limited to other regions within Tasmania.

The continued expansion of individual multi-site enterprises requires both a considerable degree of managerial skill, and the ability to secure the necessary financial capital. Evidence from the Tasmanian survey strongly suggests that only a handful of indigenous multi-site enterprises have the potential to meet these requirements for further growth. Only five enterprises are public companies which can raise capital through the issue of additional shares in their business. Most enterprises are small, and rely upon either retained earnings or institutional loans (repayable at commercial rates) for capital expansion. For most small enterprises, the commitment to repayments on institutional loans places considerable pressure upon their cash flow during periods of growth. In addition to financial limitations, most small multi-site enterprises lack the managerial skills which are necessary to sustain continued expansion. Enterprises are typically controlled by one or two senior managers who have only limited practical experience beyond the scope of their current operation.

The operational character of indigenous multi-site enterprises having been identified, the following section examines the nature of power structures between Tasmanian branch and head office establishments. Of particular concern is the degree to which individual establishments are reliant upon the enterprise head office for operating resources and key decision-making functions.

#### **4.1.3 Power Relations Within Locally Owned Enterprises**

Within each of the state's 39 indigenous multi-site enterprises, the majority of power is held by management located at the Tasmanian head office. Because most branch establishments are small, located near their head office, and are operationally linked to the head office establishment, their activities are largely controlled by those who are responsible for the operation of the enterprise as a whole. The interviews undertaken with chief executives of multi-site enterprises clearly demonstrate the extent of control which is asserted by head office management. For each enterprise, respondents were asked to provide details as to where various decisions are made for each establishment, and the degree to which establishments are reliant upon the head office for their operating resources.

From each respondent, information was obtained regarding the location within the enterprise at which 14 separate operating decisions are typically made for each branch establishment (Table 4.3). Of these 14 decisions, seven are regarded as particularly important in terms of ultimate control which is maintained over the establishment. These decisions concern staffing and production levels, where products are sold, the method by which products are sold (eg. through wholesalers or direct to the public), the source of material inputs, product design, and pricing policy. The other seven decisions for which information was obtained (such as the hiring and dismissal of labour) are more closely associated with the day-to-day operation of the establishment. For the 39 multi-site enterprises, over 80 per cent of all decisions regarding establishments are made by management located at the enterprise head office. In particular, all seven key operating decisions are centralised at the enterprise head office within each of the 39 multi-site



**Table 4.3 : Decision-Making Granted to Establishments of Locally Owned, Multi-Site Enterprises**

Decision	Office Where Decisions Regarding Establishments Are Made		
	Tasmanian Establishments	Tasmanian Establishments With Head Office Approval	Tasmanian Head Office
<b>Employment Level</b>			
Enterprises			
No	-	-	39
%	-	-	100.0
<b>Production Level</b>			
Enterprises			
No	-	-	39
%	-	-	100.0
<b>Location of Product Sales</b>			
Enterprises			
No	-	-	39
%	-	-	100.0
<b>Sales Method</b>			
Enterprises			
No	-	-	39
%	-	-	100.0
<b>Source of Inputs</b>			
Enterprises			
No	-	-	39
%	-	-	100.0
<b>Product Design</b>			
Enterprises			
No	-	-	39
%	-	-	100.0
<b>Pricing Policy</b>			
Enterprises			
No	-	-	39
%	-	-	100.0
<b>Advertising Placement</b>			
Enterprises			
No	4	4	31
%	10.2	10.2	79.4
<b>Recruitment of External Services</b>			
Enterprises			
No	14	3	22
%	35.8	7.6	56.4
<b>Raw Stock Levels</b>			
Enterprises			
No	4	10	25
%	10.2	25.6	64.1
<b>Finished Stock Levels</b>			
Enterprises			
No	6	8	25
%	15.3	20.5	64.1
<b>Executive Recruitment</b>			
Enterprises			
No	2	2	35
%	5.1	5.1	89.7
<b>Labour Replacement</b>			
Enterprises			
No	20	3	16
%	51.2	7.6	41.0
<b>Labour Dismissal</b>			
Enterprises			
No	7	6	26
%	17.9	15.3	66.6
<b>All Decisions</b>			
Enterprises			
No	57	36	453
%	10.4	6.5	83.1

Source: Tasmanian Manufacturing Survey, 1986

enterprises. For the remaining seven decisions, there is only one (labour replacement) for which more than one-half of all enterprise head offices allow branch establishments to operate independently.

Although the aggregate structure of decision-making within enterprises (shown in Table 4.3) accurately emphasises the fact that branch establishments are granted only minimal control over their own operation, there is some variation in the nature of control among enterprises adopting different market strategies. In particular, control within the eight enterprises containing several operating segments, each following a different strategy, is based upon a divisional structure. Five of the eight multi-divisional enterprises are public companies in which the divisional managers report to a board of directors, and three are privately owned enterprises in which divisional managers are responsible to a single chief executive who, by himself, maintains ultimate control over the enterprise. Managers of each division are granted a high degree of autonomy over the daily operation and, to a lesser extent, the long-term planning for each establishment within the division. In all but one of the eight enterprises, however, the divisional managers are located at the enterprise head office, and the managers of branch establishments within each division have minimal authority over their own operation.

Within single division multi-site enterprises, the degree of power maintained by the enterprise head office over branch establishments varies little between enterprises comprising different operational structures. In most of these enterprises, branch establishments are operationally linked with the enterprise head office in terms of either the transfer of materials for manufacture, or finished goods for distribution. Given the strong operational ties between head offices and branch establishments, virtually every enterprise has centralised its internal business service requirements at the head office location. The small size of most branches prohibits the duplication of internal service activities, particularly in the areas of payroll and general accounting where the low demand for such services at branch establishments can not justify the employment of accounting or clerical staff on a full-time basis. Consequently, most branch managers know very little about the financial status of their establishment in relation to the enterprise as a whole.

Establishments within enterprises located outside the head office region are typically more involved in activities such as accounts receivable, although the more complex accounting requirements are still undertaken by accountants at the enterprise head office. In fact, five of the nine single division enterprises with multi-regional establishments have centralised their accounting functions at the head office through the establishment of computer network facilities.

In the process of completing the interviews with chief executives, it became clear that the key factor in the determination of power structures within multi-site enterprises was the control over the finance capital needed to sustain or expand the operations of the company's branch locations. In order to assess the degree to which the control over finance capital has influenced the direction and magnitude of power networks within multi-site enterprises, each respondent was asked a number of detailed questions concerning the process by which decisions were taken and finance was arranged for major investments, defined as any individual investment of more than \$5,000, undertaken between 1980 and 1985. Discussion centred upon five specific areas of investment including production equipment, non-production equipment, transport equipment, land and buildings, and investments in equities and securities. Within all eight multi-divisional and 31 single division enterprises, the final decision to undertake every investment in these areas was made by senior head office management. In addition, all arrangements for finance were made by senior management of the enterprise.

Thus, both semi-autonomous operating divisions and separate branch establishments within multi-site enterprises are wholly dependent upon the directors or chief executives of the company for vital financial operating resources. As was concluded for decision-making activities, the reliance of establishments upon the head office for operating resources reflects the small-scale structure and low degree of operational sophistication among Tasmania's multi-site enterprises.

#### Changes Within Power Structures Since 1980

The current structure of power networks within Tasmania's multi-site enterprises has

changed very little since 1980. In fact, between 1980 and 1985 only nine of the 39 multi-site enterprises altered their intra-organisational structure so that functional responsibilities (including production, retailing, distribution, maintenance, or intra-organisational service activities) were actually shifted between existing establishments or between the enterprise head office and newly established branch locations. Within six of these nine enterprises, shifts in functional responsibilities were associated with the opening or closure of branch establishments. Specifically, four enterprises each established one additional branch operation while two enterprises each closed one of their branch establishments. For these six enterprises, shifts in functional responsibilities have simply arisen from the expansion or contraction of the firm's physical structure. The balance of power between establishments and the enterprise head office has not changed per se. Rather, only the number of branch establishments and the range of physical activities undertaken outside the head office has changed within each enterprise.

Within the three remaining enterprises, shifts in functional responsibilities since 1980 have actually altered the nature of power structures between establishments and the Tasmanian head office. In one enterprise, the state's largest dairy products company, a considerable increase in the concentration of power at the enterprise head office has occurred. Following the amalgamation of three independent co-operatives in 1981 to form the present company, the enterprise rationalised both its management and production structures. Three factories were closed, and the enterprise head office has transferred within the north west region from Smithton to Devonport. The reporting structures under which the three previous co-operatives operated were rationalised in 1982 by establishing an executive committee based at the Devonport head office. Appointed by a board of directors, the five member committee comprises managers responsible for manufacturing, marketing, personnel, finance, and group accounting. By establishing the committee, power was effectively transferred from individual establishments which, under the previous three co-operatives, were semi-autonomous in areas of production and marketing. In 1983, the range of functions undertaken by individual establishments was further reduced when a centralised computer system was installed to process most of the

group's accounting and stock control data.

In each of the two other enterprises in which power structures have changed since 1980, there has been a small shift in control away from the Tasmanian head office. Within the largest plant bakery in the north west region, accounting, payroll, and stock control were decentralised from the Burnie head office to the company's branch establishment in Devonport following the installation of a computer network facility between the two locations. Within one of the largest sawmilling companies in southern Tasmania, diversification and expansion of activities since the early 1970s led to the eventual creation of five semi-autonomous operating divisions in 1984. By that time, the enterprise had diversified away from sawn timber production into other areas including joinery, timber and hardware retailing, clay building bricks, and automotive sales. Although the five division managers are all based at the head office in Hobart, each manager has virtual control over employment and marketing decisions involving their division, within the guidelines established by the company's board of directors. Diversification away from areas in which enterprise management has traditionally been involved has been instrumental in increasing the control which each division has been able to maintain over its own operation. Growth has encouraged the enterprise to recruit divisional managers who possess a high level of expertise within the particular area concerned. As evidence from the survey of manufacturers suggests, however, only a few multi-site enterprises have diversified into such a wide range of activities, requiring a more highly specialised management structure.

The following paragraphs detail the organisational and power structures within non-locally owned multi-site enterprises in Tasmania. Once again, discussion highlights the nature of functions undertaken at the establishment level, as well as the operational structures and market strategies of enterprises in Tasmania.

## **4.2 RELATIONSHIPS BETWEEN ESTABLISHMENTS WITHIN NON-LOCALLY OWNED MULTI-SITE ENTERPRISES**

### **4.2.1 Spatial Structure of Operations**

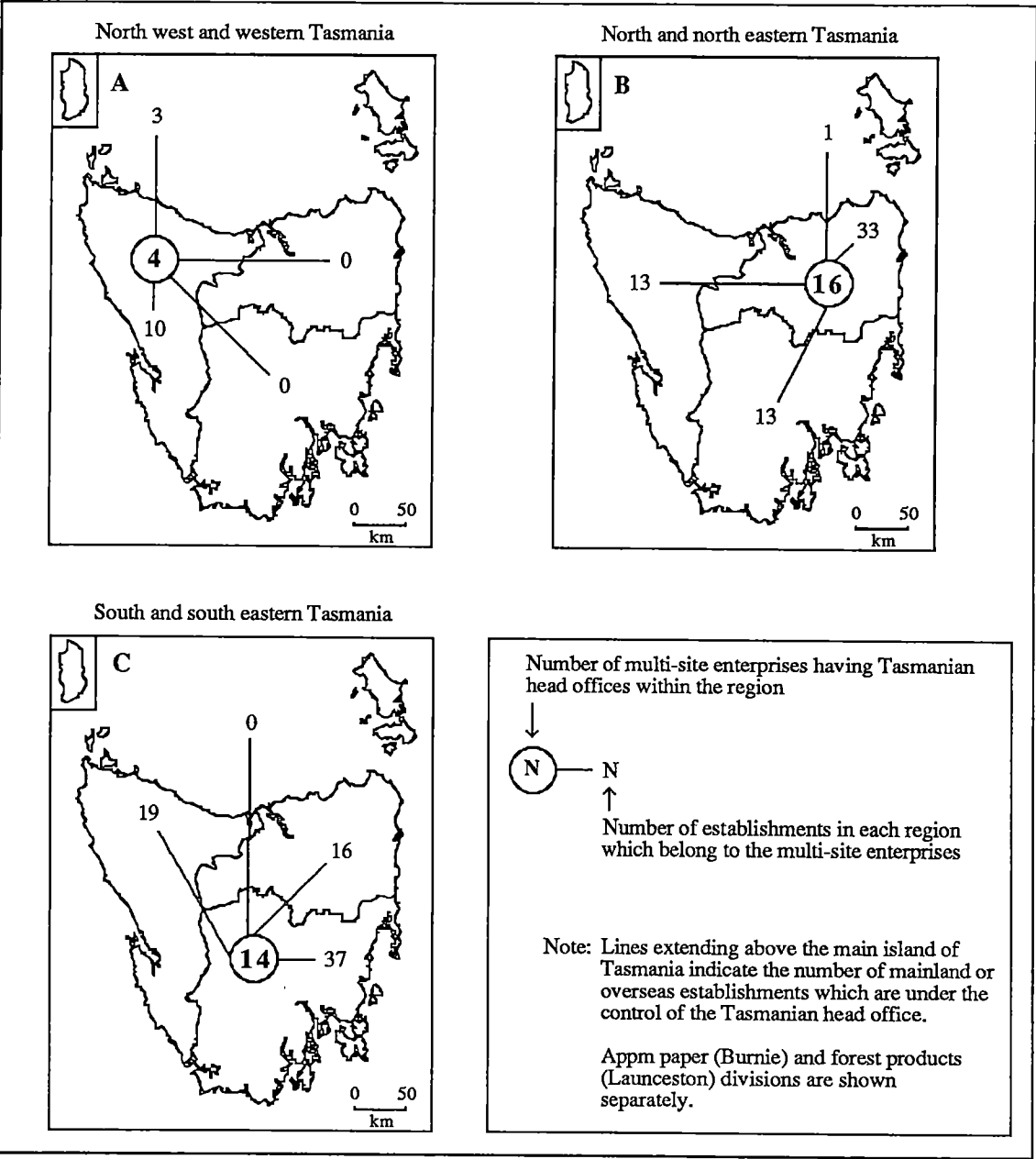
Of the 85 non-locally owned enterprises in Tasmania, 40 per cent (N=34) are multi-

site operations. These 34 enterprises control three-quarters (N=145) of all establishments and 43 per cent of employment within the state's non-locally owned manufacturing sector. The largest number of non-locally owned multi-site enterprises (N=16) are headquartered in north and north eastern Tasmania, almost all within the Launceston urban area (Figure 4.6B). Together, these 16 enterprises operate 59 establishments, and employ 37.2 per cent (2,651 persons) of the externally-owned multi-site workforce throughout Tasmania. The majority of establishments (N=33) are located within the Launceston area, as five enterprises operate only within their head office region. Four of these are manufacturers of resource-based products, and one produces bearings for the automotive industry. A further seven enterprises control the 13 establishments in the north west region while nine enterprises account for the 13 establishments operating in south and south eastern Tasmania. Only one northern-based enterprise, a timber products company, operates an establishment outside the state. The firm has operated a small timber mill in New South Wales since 1970. Of the 11 enterprises which operate outside their head office region, seven have establishments located in each region of Tasmania.

In total, 14 of the 34 non-locally owned multi-site enterprises are headquartered in the Hobart urban area (Figure 4.6C). Together, these enterprises operate from 72 establishments throughout the state, employing just under one-third of the total workforce (2,173 persons) within externally-owned multi-site enterprises in Tasmania. Although the largest number of establishments (N=37) are located in the immediate Hobart area, all 14 of the multi-site enterprises operate outside the southern region of the state. Specifically, six of the 14 enterprises have establishments in each of the three state regions, four enterprises operate in Hobart and in the north west region, and four enterprises have establishments in both the Hobart and the Launceston regions. Ten enterprises headquartered in Hobart operate the 19 establishments in the north west while the 16 establishments in Launceston are also controlled by 10 Hobart-based enterprises.

Although only four multi-site enterprises are headquartered in the north west region, they employ 2,299 persons, which is one-third of the non-locally owned multi-site workforce in Tasmania (Figure 4.6A). The largest of these enterprises, the paper

**Figure 4.6: Establishment Structure of Non-Locally Owned, Multi-Site Enterprises in Tasmania**



Source: Tasmanian Manufacturing Survey, 1986

manufacturer APPM, accounts for nearly 85 per cent of this employment between its two paper mills at Burnie and Wesley Vale. In addition to APPM's paper division, the Canadian-based transnational McCains Ltd (producing frozen vegetables) and the Sydney-based subsidiary ICI Australia (manufacturing explosives for the west coast mining industry) each operate from two establishments in the north west region. The largest timber company based in the region operates three establishments both in the north west and on the mainland.

Compared to Tasmania's indigenous multi-site enterprises, the 34 non-locally owned enterprises are rather less represented in the immediate local region in which the enterprise head office is based (Table 4.4). Among the non-locally owned operations, only 20 per cent (N=8) operate within a single region compared to 46 per cent (N=18) of all indigenous multi-site enterprises. Moreover, only 55 per cent (N=80) of all non-locally owned establishments are located in their respective head office region, compared with 67 per cent (N=107) of all indigenous establishments within multi-site enterprises. Similar to indigenous firms, only a very small number (N=2) of non-locally owned enterprises have establishments located outside the state which are ultimately responsible to the Tasmanian head office. The reasons why so few enterprises control establishments outside the state are largely related to the complex organisational and power relations which have emerged between Tasmanian enterprises and their externally-located head offices. While these relations are examined in detail in Chapter 5, it is important to note that the reliance upon operations in Tasmania has, for most enterprises, encouraged an operational structure within the state in which establishments are typically small, and functionally dependent upon the Tasmanian enterprise head office. In this respect, indigenous and non-locally owned multi-site enterprises are very similar.

#### Functions Undertaken in Tasmania

The lack of operational sophistication, small physical size, and functional dependence of most establishments upon their enterprise head office is highlighted by the fact that only 42 per cent (N=60) of the 145 non-locally owned establishments employ full-



**Table 4.4: Regional Concentration of Establishments Among Non-Locally Owned Multi-Site Enterprises**

Location of Tasmanian Head Office	Enterprises Tasmania	Establishments		% of Total Establishments Located In			Total Tasmania and Mainland
		Tasmania	Mainland	NW/W	N/NE	S/SE	
N.W. & Western Tasmania	4	10	3	76.9	-	-	100.0
North & N.E. Tasmania	16	59	1	21.6	55.0	21.6	100.0
South & S.E. Tasmania	14	72	-	26.3	22.2	51.3	100.0
Total	34	141	4	28.9	33.7	34.4	100.0

Source: Tasmanian Manufacturing Survey, 1986

time administrative workers (Table 4.5). Similar to the state's indigenous multi-locational operations, many of the 34 externally-owned enterprises are engaged in a number of activities outside manufacturing. In total, sales of goods manufactured in Tasmania account for 82 per cent of the total income received by the 34 enterprises. However, only 10 enterprises are dependent upon manufacturing as their only source of income. In fact, only 60 per cent (N=85) of the 145 establishments are actually involved in manufacturing activities.

In contrast to indigenous enterprises, only a small number of non-locally owned multi-site operations are engaged in retailing, installation and maintenance activities. Twenty-nine per cent (N=10) of enterprises and 21 per cent (N=30) of non-locally owned establishments retail products directly, while 32 per cent (N=11) of enterprises and only 8 per cent (N=12) of establishments either install their products or perform maintenance services for their customers. Slightly more non-locally owned than indigenous multi-site enterprises (18 per cent) are involved in wholesaling activities. Virtually all wholesaling activity undertaken by non-locally owned enterprises involves the distribution of products manufactured by establishments of the parent company outside Tasmania.

A considerably higher percentage of non-locally owned enterprises are involved in transport, storage and distribution activities throughout Tasmania. In part, this reflects the fact that non-locally owned enterprises have a higher percentage of establishments located outside their head office region, creating a greater demand for inter-regional transport services. Moreover, only six enterprises subcontract out their intra or inter-regional transport requirements. Several enterprises, manufacturing products such as ice cream, frozen vegetables, ready-mix concrete, asphalt, and industrial gases, have no choice but to undertake their own transport within the state since they require specialised transport equipment which is often not available from local cartage companies.

Of the seven enterprises employing research staff on a full-time basis only two firms, a seafood processing operation south of Hobart and a Hobart-based manufacturer of beer and cordials, have undertaken research which has led to the development of new products manufactured locally since 1980. Research staff within each of the five

**Table 4.5: Functions Undertaken by Non-Locally Owned, Multi-Site Enterprises in Tasmania**

Function	Location of Tasmanian Head Office			Total Tasmania
	N.W. & Western	North & N.E.	South & S.E.	
<b>Manufacturing</b>				
Enterprises				
No	4	16	14	34
%	100	100	100	100
Establishments				
No	7	42	36	85
%	70	71	50	60
<b>Administration/Clerical</b>				
Enterprises				
No	4	16	14	34
%	100	100	100	100
Establishments				
No	6	25	29	60
%	60	43	40	42
<b>Retailing</b>				
Enterprises				
No	1	3	6	10
%	25	19	43	29
Establishments				
No	2	8	20	30
%	20	14	28	21
<b>Wholesaling</b>				
Enterprises				
No	-	3	9	12
%	-	19	64	35
Establishments				
No	-	8	46	54
%	-	14	63	38
<b>Installation/Maintenance</b>				
Enterprises				
No	1	2	8	11
%	25	12	57	32
Establishments				
No	1	2	9	12
%	10	3	12	8
<b>Research &amp; Development</b>				
Enterprises				
No	-	5	2	7
%	-	31	14	20
Establishments				
No	-	5	2	7
%	-	8	3	5
<b>Transport/Distribution</b>				
Enterprises				
No	2	13	6	21
%	50	81	43	62
Establishments				
No	3	27	21	51
%	30	46	29	36

Source: Tasmanian Manufacturing Survey, 1986

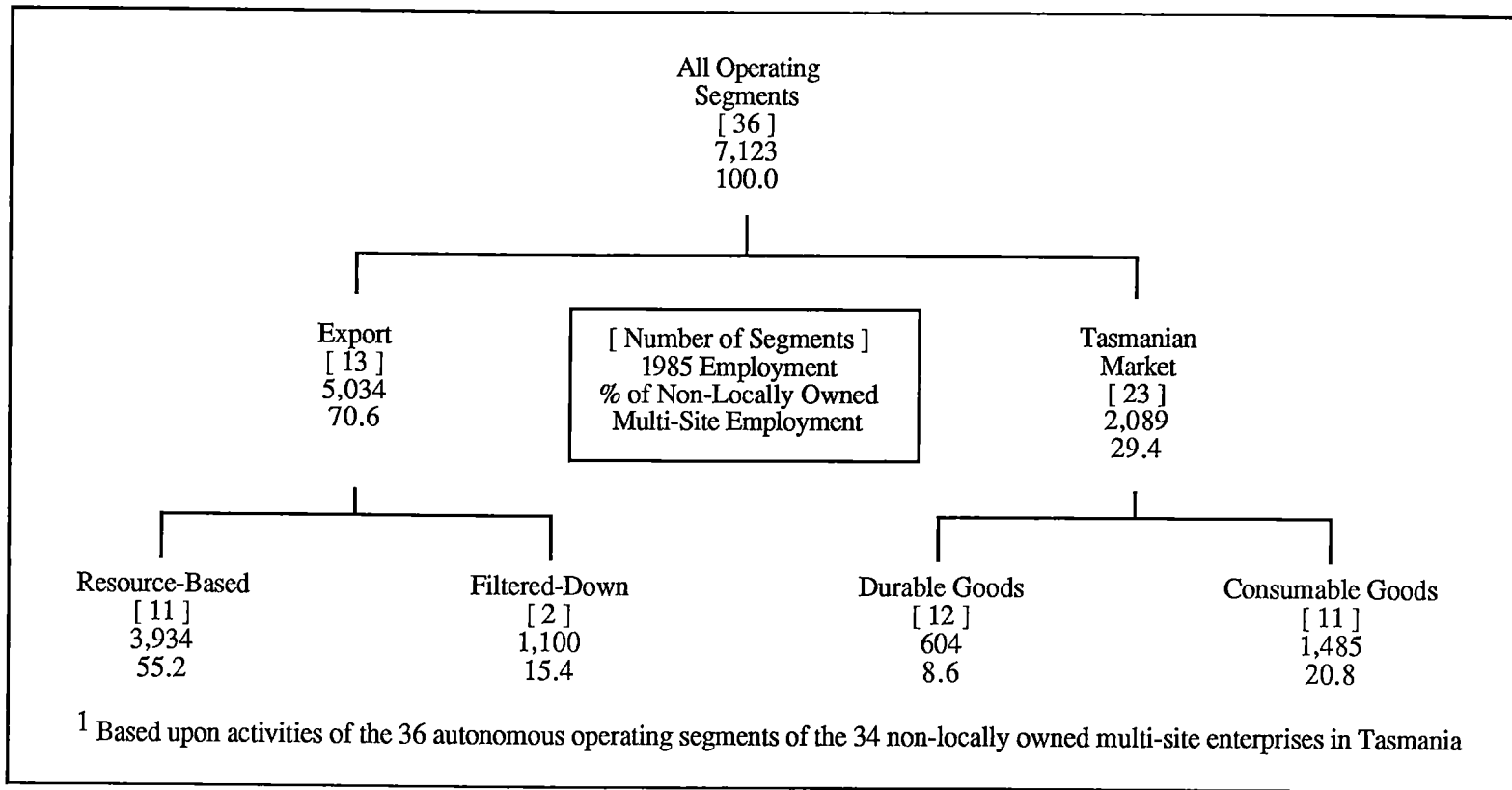
remaining enterprises are primarily engaged in areas of quality control, the improvement of existing products, or the development of processes used within the manufacturing process. The fact that so few enterprises are engaged in research activities, and that most research which is undertaken focuses upon existing products and processes, suggests that the strategies adopted by the operations in Tasmania are greatly influenced by the character of the limited local market. The following paragraphs detail the dominant operational structures of non-locally owned multi-site enterprises in Tasmania, highlighting the product and market strategies of individual firms.

#### **4.2.2 Operational Structures of Non-Locally Owned Multi-Site Enterprises**

Among the 34 non-locally owned multi-site enterprises in Tasmania, only two contain a divisional structure in which autonomous operating segments are following different market strategies. The following discussion is thus based upon the activities of 36 operating segments throughout the state. In total, two dominant operational structures are identified. The primary factor distinguishing these structures is whether segments are engaged in production for export markets, or are manufacturing goods and providing services within the state market (Figure 4.7). The largest number of segments (N=23) operate within the Tasmanian market. Together, these 23 segments employ 2,089 persons, nearly 30 per cent of the state's non-locally owned multi-site manufacturing workforce. Segments manufacturing for the local market are further differentiated on the basis of those manufacturing durable or consumable goods. Although only 13 operating segments manufacture products primarily for sale in export markets, they account for over 70 per cent (5,034 persons) of the workforce employed within the 34 multi-site enterprises. The majority of these segments (N=11) are engaged in resource-based production while the remaining two segments are involved in filtered-down activities.

The dominant operational structures of non-locally owned enterprises are certainly less diverse than those of indigenous multi-site firms. Among indigenous firms, the distinction between enterprises serving a single or multiple region market is very important, as most indigenous operations were initially established as a single-site

Figure 4.7: Operational Structures of Non-Locally Owned Multi-Site Enterprises in Tasmania <sup>1</sup>



Source: Tasmanian Manufacturing Survey, 1986

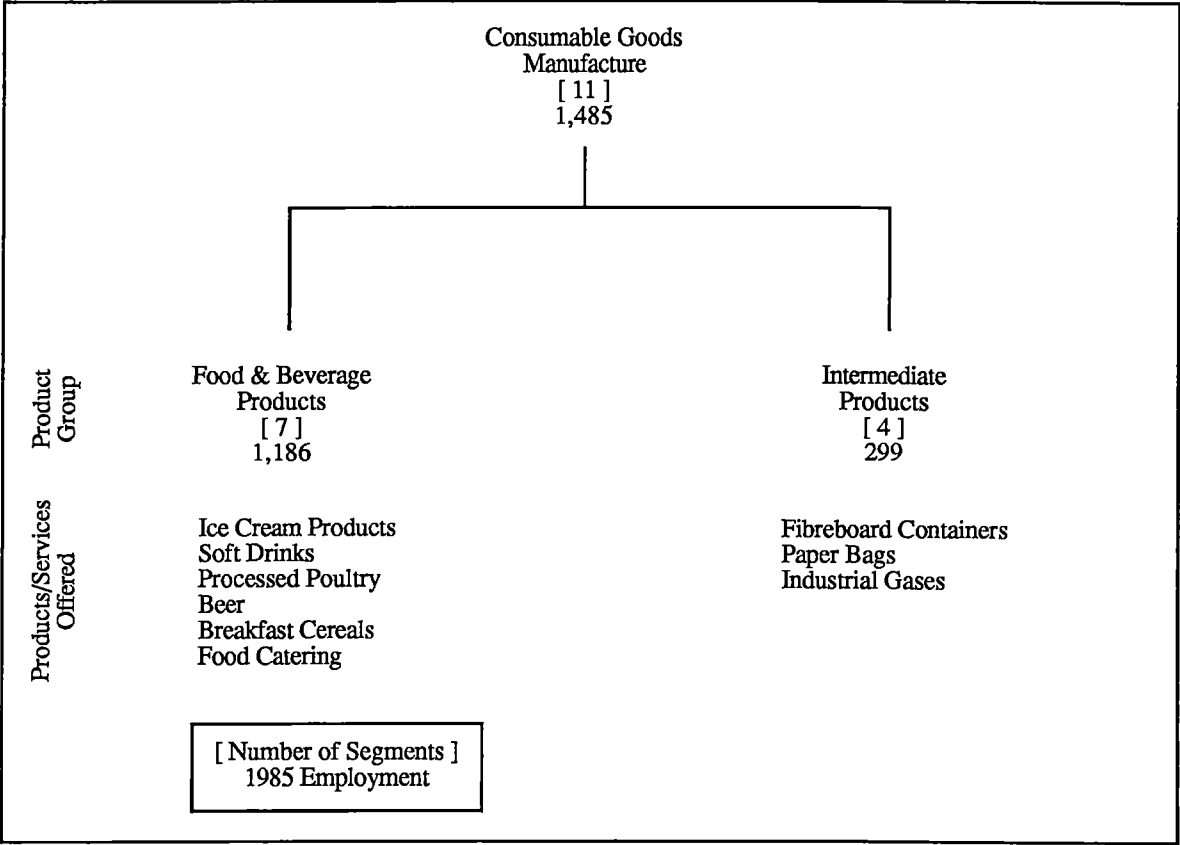
company selling within a single region market. For these firms, expansion into other regions of the state represents a major growth strategy. In contrast, each of the 23 non-locally owned multi-site segments oriented toward the Tasmanian market were initially established by their parent company to sell to the entire state market. Moreover, all but two of these 23 enterprises have located establishments outside the region in which the Tasmanian head office is based. Since there is much less diversity among non-locally owned enterprises in terms of operational structure, the activities of these firms are discussed primarily in relation to the different product groups in which they manufacture. The identification of these product groups helps to establish the nature of enterprise competition within the local market, as well as the different market strategies being followed by external capital.

#### Consumable Goods Manufacture

Among the 23 non-locally owned operating segments selling in the Tasmanian market, the majority of employment (71 per cent) is controlled by 11 segments which are primarily manufacturing consumable goods (Figure 4.7). Together, these segments employ 1,485 persons, one-fifth of the non-locally owned multi-site workforce in Tasmania. The 11 segments are further differentiated on the basis of two product groups. Specifically, seven segments produce food and beverage products, and four segments manufacture intermediate products for other companies (Figure 4.8).

Employing 1,186 persons, the seven multi-site segments producing food and beverage products account for 80 per cent of the workforce within enterprises manufacturing consumable goods. Included among the seven segments are two enterprises producing soft drink products, and single enterprises manufacturing, respectively, ice cream, breakfast cereal, and poultry products. Two divisional segments, one producing beer and cordials for the statewide market, and the other providing catering services in southern Tasmania, are also included. Multi-site segments manufacturing food and beverage products are generally large in terms of employment; five of the seven segments employ more than 100 persons. In addition, five segments are part of large

**Figure 4.8: Product Groups Within Non-Locally Owned Multi-Site Enterprises  
Manufacturing Consumable Goods for the Tasmanian Market**



Source: Tasmanian Manufacturing Survey, 1986

mainland-based organisations which control a major share of the national market for their particular products.

#### Beverage Manufacture

Two of these segments, the Tasmanian bottlers of Coca-Cola and Schweppes soft drinks, compete against one another in the state market. Coca-Cola (Tasmania) operates a bottling plant in Launceston, as well as storage and distribution facilities in Devonport and Hobart. In addition to Coke and Diet Coke, the Tasmanian enterprise manufactures six other carbonated soft drink and mineral water products. The enterprise also distributes five soft drink product lines manufactured by the parent company in Adelaide. Coca-Cola's Tasmanian operation is well placed to increase its wholesale activities for other mainland firms since it has direct access to each of the state's three regional markets and operates its own delivery fleet.

The Tasmanian operation of Schweppes soft drinks comprises a small production facility in Hobart as well as a distribution centre in Launceston. Schweppes' Tasmanian workforce has remained small, however, as the Hobart plant only operates a single glass bottle packaging line, and the company's transport requirements are subcontracted out to owner operators. Products packaged in aluminium cans and plastic containers are manufactured by the parent company in Melbourne and shipped to Tasmania for local distribution. By comparison, the Coca-Cola plant in Launceston operates its own canning line utilising three piece steel cans produced by a firm in Devonport. Plastic containers, purchased from mainland suppliers, are also filled in Launceston. Although Coca-Cola's production operations in Tasmania are superior to Schweppes, Schweppes has managed to secure a large share of the state soft drink market through its retail sales, post-mix facilities in hotels, and long-term supply contracts with fast food outlets such as Kentucky Fried Chicken and Pizza Hut. Following the federal Labor government's decision to double the wholesale tax on carbonated soft drinks from 10 to 20 per cent in September 1985, Tasmanian sales of both Coca-Cola and Schweppes beverages have suffered at the expense of competing products such as non-carbonated cordials which are exempt from



the tax and manufactured by firms outside Tasmania.

A third non-locally owned multi-site beverage manufacturer, The Cascade Brewery Company Ltd, developed as an indigenous enterprise. Established in 1824, the company located breweries in Hobart and Launceston, producing beer under separate labels. Since the two breweries were established, each has concentrated upon sales within the region in which it is based, with the Launceston plant also dominating the market in the state's north west region. In the 1920s diversification into cordials and fruit juices took place, and expanded further in 1962 when Cascade purchased a local competitor based in the Huon Valley in southern Tasmania. Since 1970 the enterprise has expanded into liquor wholesaling activities statewide. In 1985, Cascade was acquired for \$47 million by Industrial Equity Ltd (IEL), the Sydney-based subsidiary of the New Zealand transnational Brierley Investments Ltd. The acquisition benefited both enterprises, with IEL gaining access to Cascade's relatively large cash flow (Cascade's turnover in 1985 was \$80 million), and Cascade benefiting from IEL's ability to secure the finance necessary for further diversification outside the Tasmanian beer market. Although Cascade holds a 90 per cent market share within Tasmania, the beer market has become less profitable for a number of reasons, including growing competition from mainland breweries, increasing excise taxes, and stagnant market conditions.

Later in 1985, Cascade acquired the Four Seasons Hotel chain, incorporating 15 hotels in Tasmania and 10 on the mainland. The purchase of Four Seasons increased Cascade's annual turnover by \$23 million, and total employment by nearly 1,000 persons. Although the marketing division of Four Seasons has since been transferred to Sydney, senior management of the accommodation group is based at Cascade's head office in Hobart. The acquisition of Four Seasons has also provided an opportunity for increased sales of Tasmanian beer in mainland markets, placing Cascade in direct competition with Carlton and United Breweries, as well as Swan and Castlemaine/Tooheys. In 1986, Cascade hired the former Melbourne secretary of Carlton and United Breweries to head the company's export marketing development. Sales outside the state have thus far been promising. The Hobart brewery has developed a premium lager for sale on the mainland,

while the Launceston brewery has marketed beer under its own label within the UK market. Cascade's fruit juice division also benefited from the acquisition of Four Seasons as it gained control of the accommodation group's established in-flight catering contracts with Australian Airlines' Hobart-based operations.

#### Food Manufacture

Three of the four non-locally owned multi-site segments producing food products manufacture at a single location and sell their products within each region of the state. Two of these are enterprises headquartered in the Hobart area, producing breakfast cereal and poultry products respectively. The manufacturer of breakfast cereal was first established as a wholesale division by the Melbourne-based parent company in 1949. Manufacturing operations commenced in 1958, partly the result of amendments to the Federal Wheat Stabilisation Act which guaranteed equal f.o.b. prices for wheat in all capital cities. Since that time, the company has produced a limited range of cereals for sale in the state market, utilising wheat from the mainland as well as malt and packaging materials available in Tasmania. Wholesale activities have continued as the range of food products manufactured by the parent firm on the mainland has expanded considerably since the 1950s. Beginning in 1962, the Tasmanian operation expanded into direct retailing. The enterprise presently operates five retail outlets throughout the state, including three in Hobart, and one in each of Launceston and Burnie.

The second enterprise headquartered in the Hobart area operates the largest poultry processing plant within Tasmania. Originating as an indigenous operation, the enterprise was purchased in 1970 by a Sydney-based subsidiary of one of Australia's largest food products manufacturers. At the time, the Tasmanian poultry market was served by a number of small processors selling primarily within their immediate local markets. Within 12 months after the company was purchased, a much larger processing facility was built east of Hobart. The enterprise continued to expand over the next ten years, establishing four breeder farms and three hatcheries in southern Tasmania. In 1983 the enterprise diversified into egg production by purchasing an indigenous company which operated the

state's largest egg farm, near Launceston. Sales within the state's retail market for both eggs and poultry are largely dependent upon long-term contracts with Tasmania's two largest retailers, Coles-Myer Ltd and Woolworths. As part of the parent company's national marketing strategy, contracts for these retailers in Tasmania are negotiated on behalf of the Tasmanian operation by management at the Sydney head office. Supply arrangements with smaller retailers and restaurants are handled by managers in Tasmania. In 1985, the enterprise controlled over 80 per cent of the Tasmanian poultry market, competing against only a few small indigenous operations and one large manufacturer with production facilities on the mainland.

A third multi-site enterprise comprising a single production facility and distributing its products statewide is an ice cream manufacturer headquartered in Launceston. Established in 1952, the enterprise located in Tasmania as part of a strategy aimed at reducing the costs of transporting frozen goods across Bass Strait, and utilising supplies of concentrated milk, milk powder and butter fat available locally. The firm maintains its own fleet of refrigerated trucks in Tasmania, operating from four distribution centres throughout the state. In addition to manufacturing and distributing its own products, the Tasmanian operation provides frozen storage facilities and distributes products for over 30 non-related companies located in Tasmania and on the mainland. The enterprise also acts as a wholesale agent for several establishments of the parent firm, three of which manufacture frozen vegetable products in Tasmania. In total, nearly one-half of the operation's turnover comes from the storage and distribution of other manufacturer's products. In 1982, the enterprise consolidated its position as the only manufacturer of ice cream in Tasmania when it bought out a family owned company in Hobart producing for the southern market. The enterprise presently controls the majority share of the Tasmanian market, with its only competition manufacturing in Sydney and distributing its products via wholesalers in Tasmania.

The final multi-site food products operation in Tasmania, a divisional segment of the state's largest non-locally owned seafood processing enterprise, is engaged in food wholesaling in southern Tasmania. The division was established in 1982 following a

decision by the group's directors in Adelaide to diversify the activities of the Tasmanian enterprise outside seafood processing and exporting. Since its creation, the division's strategy has been to concentrate on supplying a wide range of frozen foods to the local hotel and restaurant industry. The division fills a market niche not serviced by other wholesalers which deal primarily with the retail food industry.

#### Intermediate Products

In addition to the seven multi-site operations manufacturing food and beverage products for the local market, two enterprises are engaged in the manufacture of packaging materials and two are manufacturers of industrial gases for other firms in Tasmania (Figure 4.8). Together, these four enterprises employ nearly 300 persons. The two enterprises producing packaging materials are both headquartered in Launceston where they manufacture and distribute their products throughout the state. The first enterprise began manufacturing corrugated fibre cartons in 1952 to supply the vegetable and dairy products industries in northern Tasmania. Initially a division of Launceston's largest indigenous timber products company, the operation comprised a small manufacturing facility in Launceston and a warehouse in Devonport. In 1956, the division was sold as shares in the operation were divided between the mainland firms ACI, J. Fielding, and Reid Paper Ltd. In 1961, a much larger plant was built in Launceston, and in 1966 a manufacturing facility was established in the Huon Valley to service the apple and pear industries. By 1973, the market for corrugated containers in the Huon had fallen from eight to two million cartons annually as Tasmania's fruit industries suffered serious decline. The enterprise subsequently closed its southern manufacturing operation. Ownership of the enterprise changed again in 1984 when James Hardie Containers purchased the packaging divisions of ACI and Reid Paper Ltd on a national basis. Since the takeover by James Hardie Containers, the Tasmanian operation has diversified into solid fibre containers. Although the volume of sales taken by southern fruit growers has fallen dramatically, over 90 per cent of container sales go to customers in rural or resource-based industries.

The second packaging enterprise based in Launceston manufactures both plain and printed paper bags for the Tasmanian retail trade industry. Established as a wholesale division of a small Victorian firm in 1948, the enterprise was taken over by Reid Paper Ltd in 1963, and by James Hardie Containers in 1984. Manufacturing of paper bags commenced in Launceston in 1967. In addition to the Launceston manufacturing plant, the enterprise jointly occupies the Hobart and Devonport sales and distribution centres operated by the manufacturer of corrugated containers. Apart from utilising joint storage facilities, the two enterprises operate as independent companies within Tasmania. Since 1980, the market for paper bags has declined in favour of polyethylene products produced by establishments of the parent company in three mainland states. While the Tasmanian operation distributes these products locally, controlling virtually the entire state market, the percentage of turnover accounted for by goods manufactured within Tasmania has fallen to nearly 30 per cent. Changes in both consumer tastes and production technologies have clearly threatened the viability of the enterprise's manufacturing base in Tasmania. The cost of purchasing and maintaining equipment for the manufacture of polyethylene bags prohibits the duplication of mainland production facilities in a small market such as Tasmania. One of the few options open to the Tasmanian operation is to strengthen its market position in areas of wholesaling and distribution of externally manufactured products. In addition, the operation has successfully maintained sales of paper bags within particular market niches (including bottle shops and take-away stores) less suited to polyethylene packaging.

Both multi-site enterprises manufacturing industrial gases were established as indigenous operations prior to the Second World War. In Launceston, an enterprise developed the local market for the manufacture and supply of reticulated gas, and operated until 1980 when a declining market and a lack of funds necessary for new investment placed the firm in a serious debt situation. Between 1980 and 1982 the Tasmanian government maintained a controlling interest in order to keep the company from closing, as it was the only supplier of reticulated gas in the north of the state. In 1982, the company's operating losses totalled nearly a quarter of a million dollars. Early in 1983 the

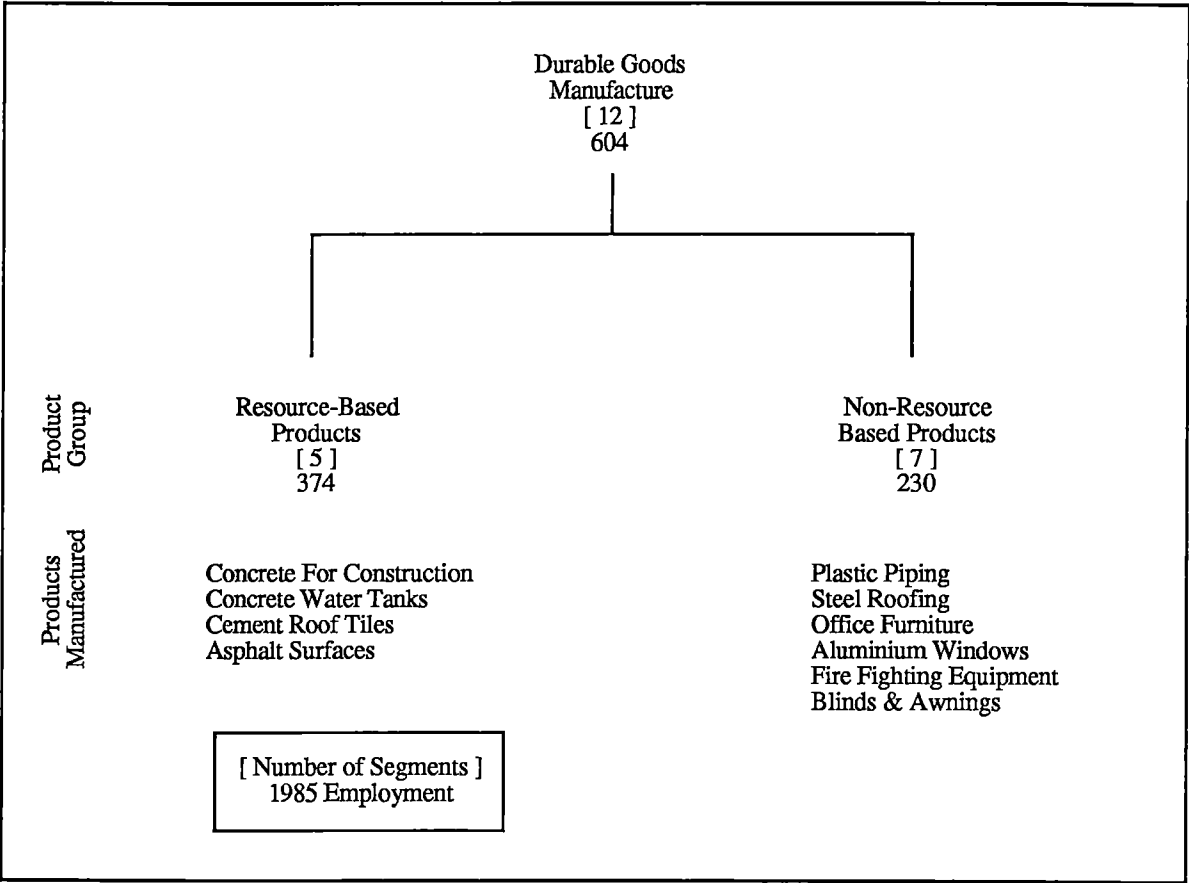
operation was sold to Boral Limited's energy division, under which the strategy of the Tasmanian enterprise changed considerably. By 1985, the enterprise invested nearly \$10 million to establish itself as Tasmania's dominant supplier of LP gas for industrial use. Two major developments were the construction of an LP gas terminal storage facility in Devonport, and the acquisition of a local competitor's LPG division which guaranteed the Launceston operation a virtual monopoly over the supply of LP gas in Tasmania. The company's turnover in Tasmania increased from \$3 million in 1980 to \$12.5 million in 1985, with the main areas of growth being in the industrial and automotive fuel markets where LP gas has become increasingly competitive against hydro-electric and petroleum energy sources.

A second enterprise, headquartered in Hobart, is Tasmania's largest supplier of medical gases, gases for the food and hospitality industry, welding products, gas cylinders and pest control systems. Based in Sydney, the present parent company entered the Tasmanian market in 1935 as a minority shareholder in an indigenous enterprise serving the state's southern region. By 1945 the Sydney firm acquired a majority interest in the operation. In addition to the Hobart office and manufacturing facility, the enterprise presently operates sales and service centres in Burnie, Devonport and Launceston. Since 1980, the enterprise has concentrated on the manufacture and supply of gases to the medical and food industries, and has ended its involvement in distributing LP gas to Tasmanian industry. The decision to concentrate upon sales outside the LP gas market coincides with a general strategy within the group's Australian operations to consolidate their position within the medical, hospitality, and welding products industries. In conjunction with the University of Tasmania and the Tasmanian government, the enterprise is also in the process of establishing a production facility for pyrethrin, a natural insecticide which is non-toxic to animals.

#### Durable Goods Manufacture

The remaining 12 non-locally owned multi-site enterprises selling within the Tasmanian market manufacture durable goods (Figure 4.9). Employing 374 persons, five

Figure 4.9: Product Groups Within Non-Locally Owned Multi-Site Enterprises  
Manufacturing Durable Goods for the Tasmanian Market



Source: Tasmanian Manufacturing Survey, 1986

of these enterprises are largely dependent upon local natural resources in the manufacturing process. Specifically, four operations are reliant upon the manufacture and sale of cement-based products. These include two enterprises manufacturing ready-mix cement and quarry products, and single enterprises producing pre-cast cement products and concrete roof tiles.

The two enterprises manufacturing ready-mix cement and quarry products are based in Hobart and Launceston respectively. The parent companies of both enterprises are large multi-divisional corporations which operate ready-mix divisions within each state. Both Tasmanian enterprises commenced operations in the early 1960s when their respective parent organisations pushed to establish a dominant market position nationally. The Launceston-based enterprise comprises nine establishments throughout Tasmania, including five concrete plants, two quarries, and a rock crushing plant. The Hobart-based enterprise comprises a similar structure with a quarry near Hobart, and 11 concrete plants located throughout the state. The quarries operated by the two enterprises supply virtually all of their own material requirements. In addition, many smaller indigenous firms are dependent upon the quarries for supplies of sand and crushed gravel.

The two remaining manufacturers of cement-based products rely upon annual supply contracts with the Tasmanian government for a large percentage of their turnover. The enterprise producing concrete roof tiles operates a manufacturing plant at its head office near Launceston, as well as sales centres at Ulverstone in the north west region and in Hobart. While 70 per cent of product sales are direct to local wholesalers and building contractors, the remaining 30 per cent are taken by the state government which has granted the enterprise long term roofing contracts for public housing developments throughout Tasmania. Headquartered in Hobart, the manufacturer of pre-cast cement products produces concrete water pipes under annual supply contracts with the state government. These contracts represent nearly one-half of the enterprise's total turnover in Tasmania. Since 1980, however, the company has reduced its dependence upon the Tasmanian cement market by purchasing a locally owned brass foundry in Launceston. Nearly 10 per cent of the products manufactured by the foundry are pipe fittings which are transferred to



establishments of the parent company on the mainland for fabrication.

The fifth enterprise engaged in resource-based production for the local market is a subsidiary of Mobil Australia Ltd, manufacturing asphalt in Launceston and Hobart. Established in 1964, the enterprise has traditionally relied upon individual state and federal government tenders for the majority of income received. In 1985, public sector contracts accounted for over 80 per cent of the operation's turnover, largely due to major redevelopments of the Launceston airport and the state highway system. As a strategy to reduce their dependence upon the availability of public contracts, the enterprise also acts as a wholesale agent in Tasmania for various products manufactured by other segments of Mobil within Australia. In addition, a small amount of subcontract manufacture is undertaken by the enterprise for their major competitor, an indigenous firm based in Hobart. The subcontract work provided applies only to small private sector contracts which the non-locally owned enterprise would not normally bid for as sole supplier.

Of the seven multi-site enterprises manufacturing non-resource based durable goods, five produce products for the building and home improvement industries. All but one of these five enterprises are headquartered in Hobart. Products manufactured include aluminium windows, steel roofing, gutters and office furniture, blinds and awnings, glass mirrors, and PVC pipes and fittings. Each of these enterprises belongs to a parent organisation which operates similar plants in several states under a strategy of local market entry. Virtually all materials required for manufacturing are purchased from sources outside Tasmania. In fact, each enterprise purchases at least 50 per cent of its materials from establishments of its parent company located outside the state. Manufacturing is predominantly oriented toward the fabrication of componentry or semi-processed materials, and is particularly suited to meet the requirements of one-off, small to medium-scale product orders. Given the level of processing which is undertaken, only a minimal amount of capital is needed to maintain production operations in Tasmania. The economies of bulk or centralised purchasing as well as the financial and technical support of the mainland parent organisation enables these enterprises to compete successfully against indigenous manufacturers, particularly for government contracts. Each of the five

enterprises operate establishments in more than one region of the state, selling only within its own area.

Typical of these enterprises is a Hobart-based subsidiary of the Australian steel producer BHP Ltd. Since 1964 the enterprise has manufactured steel roofing, gutters and office furniture for the Tasmanian market from establishments in each region of the state. Over 90 per cent of the material inputs used in the manufacturing process are purchased from BHP's steel division at Port Kembla in New South Wales. Each establishment markets only within its local region, selling directly to builders, as well as through building products and furniture retailers. Annual investment in production equipment, typically less than \$2,000, is directed primarily toward the replacement of existing machinery and ancillary equipment. In the past, most major investments in capital equipment (such as steel rolling mills) have involved the transfer of older machinery from mainland branches of the parent company to the Tasmanian operation.

The two remaining enterprises manufacturing non-resource based durable goods were originally established as indigenous operations in Hobart. They are a manufacturer of various products (ie. rope, nets and chains) for the marine industry, and a company producing and servicing fire protection equipment. In 1980 the indigenous enterprises were sold to subsidiary companies of BHP Ltd and James Hardie Industries respectively. In both cases, the indigenous operation was a family business which acted as the primary Tasmanian distributor for the mainland-based organisation which eventually bought them out. Both enterprises presently service the state market from two Tasmanian establishments, undertaking both light fabrication and the distribution of products manufactured by establishments of the parent firm on the mainland. By purchasing their local distributors, both mainland organisations have acquired direct control over the fabrication and marketing of their products within the state. In a small limited market such as Tasmania, direct contact with customers is extremely important for enterprises such as these which compete primarily on the basis of product support and after sales service.

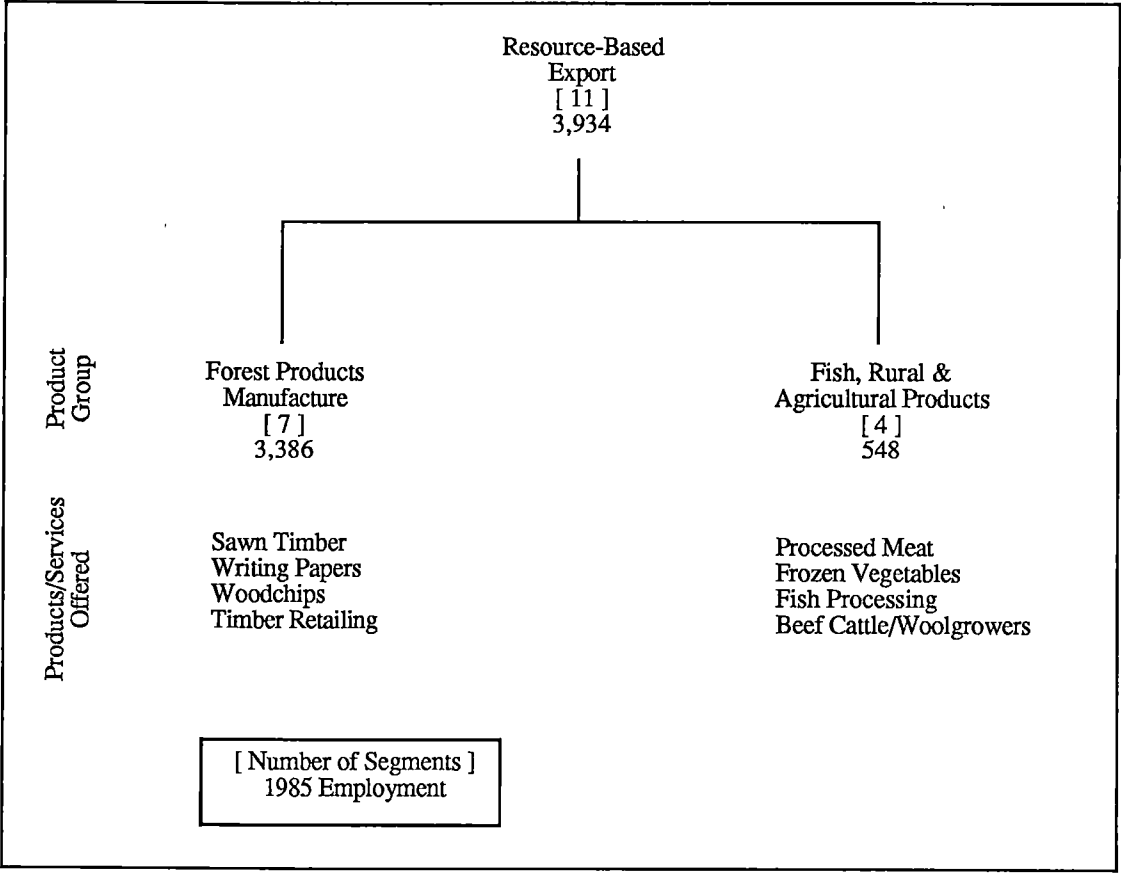
### Resource-Based Export

Of the 13 non-locally owned multi-site enterprise segments manufacturing products primarily for export markets, 11 are engaged in resource-based processing activities. These enterprises employ 3,934 persons, over one-half of the total workforce employed by non-locally owned multi-site enterprises in Tasmania (Figure 4.7).

The largest number of segments engaged in resource-based activities (N=7) are dependent upon the utilisation of Tasmania's timber resources (Figure 4.10). Three enterprises (APPM Paper, APPM Forest Products, and Kilndried Timber Industries) are owned by the Melbourne-based North Broken Hill Holdings Ltd, two enterprises (Forest Resources and Tasmanian Board Mills Ltd) are owned by Petersville Sleigh Ltd, and two firms are smaller independently owned operations. With the exception of APPM Forest Products, which operates an establishment on Tasmania's east coast, each enterprise operates from establishments located exclusively within the north and north west regions of the state. Products manufactured include rough sawn and dressed timber, writing papers, roof trusses, furniture componentry, and woodchips. While most timber products are sold directly to sales agents on the mainland, woodchips are predominantly exported to Japan, Korea and Taiwan under long-term supply contracts. Within each enterprise, production establishments are generally operated independently of one another, with only minimal transfer of materials undertaken between them. Only two enterprises are engaged in direct timber retailing in Tasmania, with only one of these actually operating a separate retail establishment. Given that the seven forest products enterprises are predominantly oriented toward sales in markets outside the state, the viability of their Tasmanian operations is largely dependent upon the continuing allocation of Crown timber resources (see Figure 3.13), and the market conditions (ie. the performance of the domestic building industry and the ability to secure long-term overseas contracts against competition provided from foreign producers) which prevail on the mainland and overseas.

Two of the four remaining multi-site operations manufacturing resource-based products for markets outside Tasmania are divisional segments of enterprises which also comprise divisions producing consumable goods for sale in the Tasmanian market. The

Figure 4.10: Product Groups Within Non-Locally Owned Multi-Site Enterprises  
Manufacturing Resource-Based Products for Export Markets



Source: Tasmanian Manufacturing Survey, 1986

resource-based divisions of these enterprises are involved in seafood processing, and beef cattle and woolgrowing respectively. The seafood processor, a subsidiary of Industrial Equity Ltd's Southern Farmers group, operates from 10 establishments throughout Tasmania. Headquartered near Hobart, the enterprise commenced operations in 1964 following its acquisition of a financially strained indigenous fisheries co-operative. The enterprise sells a wide range of fresh, canned, and frozen seafood through distribution centres of the mainland parent company, and via direct overseas exports from Tasmanian ports. The operating division engaged in beef cattle and woolgrowing is part of The Cascade Brewery Company, another of Industrial Equity's Tasmanian interests. In 1985, the division operated several large rural properties in the north east of Tasmania. Since the thesis interviews were completed in 1985, however, Cascade has sold its rural properties to acquire finance capital for other investments (see section 6.2.3).

The final two multi-site operations manufacturing resource-based products include an abattoir and an enterprise processing green vegetables. Based near Launceston, the abattoir began operations in Tasmania when it bought out a locally owned processor in 1965. In 1985, the enterprise purchased a second meatworks on King Island which, after being declared bankrupt, had been under the control of the state government for several months prior to the purchase. From these two locations, the enterprise sells boneless beef and lamb products on the mainland and overseas. Overseas sales, representing nearly three-quarters of the company's annual turnover, are destined primarily for markets for manufacturing beef in Canada, the US, and Japan.

Since 1980, Tasmania's \$232 million per year meat export industry has undergone major changes. The subsidisation of meat prices by many countries (particularly the US and EEC nations) has adversely affected the level of prices received by Australian exporters in world markets. Moreover, like most other states, Tasmania's meat processing industry is highly inefficient, given that its present capital structure was established during the 1960s and 1970s when Australian manufacturers were able to export virtually all they could produce. In 1980 there were eight abattoirs in Tasmania which exported products overseas. By 1985, the number of export operators fell to four,

the largest of which was trading under the direction of a receiver-manager. Declining stock levels and the continuation of a depressed export trading environment suggest that the industry in Tasmania must undergo further rationalisation, with perhaps only one or two abattoirs eventually serving the entire state industry.

The enterprise manufacturing frozen vegetable products, McCains Ltd, operates a processing facility at Smithton as well as a storage and distribution centre in Burnie. Between 1974 and 1982 the plant was operated by the mainland company General Jones Pty Ltd. In 1983, Petersville Sleigh Ltd acquired the national operations of General Jones, giving Petersville control over each of Tasmania's four major vegetable processing plants. Subsequent to the takeover, the Trade Practices Commission forced Petersville to sell one of its Tasmanian factories, claiming that the company had gained a monopoly over the production of processed green vegetables within the Australian market. In 1984, the Smithton plant was eventually sold to McCains International which also operates a potato processing facility at Ballarat, in Victoria.

#### Filtered-Down Processing

Only two non-locally owned enterprises engaged in filtered-down manufacturing are multi-site operations. These include the Cadbury confectionery plant headquartered at Claremont near Hobart, and the Repco Bearing & Powder Metallurgy Group located in Launceston (see section 3.3.4). Together, these two enterprises employ 15.4 per cent (1,100 persons) of the non-locally owned multi-site manufacturing workforce in Tasmania (Figure 4.7). Despite the additional transport costs incurred by shipping raw materials and finished products between Tasmania and the mainland, both companies favoured Tasmania as a location to establish production operations.

In the case of Cadbury, a commission established by the UK parent company in 1920 concluded that the advantages of Hobart's amenable labour force, supply of fresh water, and cooler climate (requiring less refrigeration) outweighed the transport cost advantages of locating a factory in Melbourne. Cadbury's Tasmanian operation presently incorporates the plant at Claremont, and a factory at Burnie which processes the milk

supplied by over 100 dairy farmers in the north and north west regions of the state. Processed milk is then transported 300 kilometres by tanker to the confectionery plant at Claremont.

The Repco Bearing Company commenced its Launceston operations in 1949, with substantial support from the federal government, which perceived the need to develop an Australian automotive industry capable of utilising only locally produced componentry. Launceston was chosen as a manufacturing location due to its abundant and stable workforce, as well as the availability of cheap hydro-electric power. The Tasmanian operation consists of three plants in Launceston manufacturing a range of self-lubricating bearings and structural parts. In the case of Repco, a multi-locational structure has arisen simply due to a lack of space available for expansion at the original establishment location.

### Summary

The preceding discussion highlights the two dominant operational structures of the 36 non-locally owned multi-site operating segments within Tasmanian manufacturing. Information gained during the interviews with senior managers demonstrates that the operations of most enterprises focus upon a single production and market strategy within the state. In fact, only two of the 34 multi-site enterprises comprise separate operating divisions following different strategies. Thirteen of the 36 multi-site firms are engaged primarily in the production of goods for markets outside Tasmania. Production activities within most of these enterprises are dependent upon the use of the state's natural and rural-based resources including timber, vegetables, fisheries, and beef cattle. The production operations of establishments within these enterprises are largely run independently of one another, with establishments either manufacturing different products or producing the same products at different locations dependent upon the availability of material inputs. Enterprises engaged in resource-based or filtered-down activities are generally large in terms of employment size, with 11 of the 13 export-oriented segments employing more than 100 persons (Table 4.6). Only four of these 13 segments actually sell products directly to customers in Tasmania. Most enterprises either market their manufactured

Table 4.6: The Nature of Production Activities Among Non-Locally Owned Multi-Site Enterprises in Tasmania

Operational Structure/ Product Group	Number of Operating Segments	Primary Source of Material Inputs	Employment Size	Capitalisation	Level of Processing
<b>Export</b>					
<u>Resource-Based</u>					
Forest Products	7	Tasmania	Large	High	Continuous Standardised
Fishing, Rural & Agricultural Products	4	Tasmania	Large	Medium	Continuous Standardised
<u>Filtered-Down</u>					
	2	Mainland/ Overseas	Large	High	Continuous Standardised
<b>Tasmanian Market</b>					
<u>Durable Goods</u>					
Resource-Based	5	Tasmania	Medium	Medium/ High	Batch/ Standardised
Non-Resource Based	7	Mainland	Medium	Low	One-Off Small-Scale
<u>Consumable Goods</u>					
Food & Beverage Products	7	Mainland	Medium/ Large	High	Continuous Standardised
Intermediate Goods	4	Mainland	Medium	Low/ Medium	Batch Standardised

Source: Tasmanian Manufacturing Survey, 1986



products through mainland establishments of the parent company or sell directly to wholesale agents outside Tasmania.

While the majority (64 per cent) of manufacturing enterprises manufacture products for the Tasmanian market, they control less than one-third of the externally-owned multi-site workforce in Tasmania. Relative to the 13 enterprises which are export-oriented, firms manufacturing products for local consumption are generally smaller in terms of employment size and the level of capitalisation required to maintain their local production activities (Table 4.6). In particular, the 11 enterprises manufacturing non-resource based durable goods and consumable goods other than food and beverage products are predominantly involved in light fabrication activities. Most of these operations depend upon either the use of hand tools or second hand production machinery transferred from other mainland establishments of the parent organisation. Eight of the 11 enterprises compete directly with indigenous firms within the Tasmanian market, especially for one-off, small to medium-scale contracts within the private sector. In general, however, non-locally owned enterprises rely more heavily upon long-term supply contracts and individual project tenders within the public sector, lessening the degree of competition between themselves and Tasmanian owned enterprises.

Each multi-site enterprise selling primarily within Tasmania actively markets its manufactured products within each of the state's three regions. The largest number of these enterprises (N=12) manufacture in only one region while operating either sales or distribution outlets in one or both of the other two state regions. Most of these enterprises are food and beverage manufacturers which require a single large-scale production facility capable of maintaining continuous production runs of standardised products for the state market. A further six enterprises undertake manufacturing within two of the state's three regions. They are Cascade's brewery operation and five firms undertaking light fabrication within the building products industry. Within each of the latter five enterprises, the duplication of production facilities is possible given that light fabrication requires only minimal investment in capital equipment and that establishments typically manufacture according to the specifications of one-off product orders. The remaining four

enterprises manufacture in each of the state's three regions. Each of these enterprises produce resource-based durable goods, utilising locally available quarry products in the manufacturing process.

Another dominant feature of multi-site operations manufacturing for the state market is that only the five enterprises manufacturing resource-based durable goods utilise large quantities of local materials (mostly quarry products) in the manufacturing process. Other enterprises purchase the majority of their material requirements from suppliers on the mainland, including other establishments of the parent organisation. There are two main reasons for this. First, many of the required materials (including many types of moulded plastics, chemicals, rolled and extruded metals, flat glass, and food additives) are neither manufactured in Tasmania or available from distributors located within the state. Second, for many non-locally owned enterprises, the parent organisation outside Tasmania dictates where materials are to be purchased, whether they are produced by other branches of the company or sourced through outside suppliers by a central purchasing office within the group or division (see section 5.1.1). Inputs purchased within Tasmania are predominantly limited to packaging materials, the majority of which are manufactured by other non-locally owned enterprises. Chapter 5 examines more closely the structure and implications of external purchasing arrangements for non-locally owned enterprises in Tasmania.

The following paragraphs identify the power relations between establishments of the 34 non-locally owned multi-site enterprises in Tasmania. Of particular importance is the degree to which managers of individual establishments are able to maintain authority over their own operations, and the changes which have taken place in terms of head office - branch relations within Tasmania since 1980.

#### **4.2.3 Power Relations Within Non-Locally Owned Enterprises**

In order to assess the power relations between branch establishments of non-locally owned enterprises and their head office in Tasmania, senior executives of each enterprise were asked a series of questions regarding the structure of decision-making within the

Tasmanian operation. Respondents were requested to identify the location at which 14 separate operating decisions were made for each establishment in Tasmania (see section 4.1.3). Respondents indicated whether each decision was normally made by managers based at individual establishments, the head office of the enterprise in Tasmania, or an establishment of the parent company located outside the state. Decisions made jointly, between either individual establishments and the Tasmanian head office or the Tasmanian head office and establishments of the parent company outside Tasmania, were also recorded. Since Chapter 5 deals intensively with the relations between non-locally owned enterprises in Tasmania and their head offices located outside the state, the following discussion focuses upon the level of decision-making which is ultimately granted to establishments of the Tasmanian enterprise.

In general, managers of establishments within non-locally owned enterprises in Tasmania have only minimal control over their own operations. In total, only 8.8 per cent of all decisions are made by managers of establishments without Tasmanian head office consultation, while 4.4 per cent of all decisions are made jointly between establishment managers and their head office in Tasmania (Table 4.7). For each of the seven most important decisions, however, managers of individual establishments are granted virtually no autonomy. All major decisions regarding the operation of each establishment are made by senior executives at either the head office in Tasmania or establishments of the parent organisation outside the state. The only actual autonomy which establishment managers possess is in relation the day-to-day operations of their individual plant or local market area. In this respect, the responsibilities of establishment managers within non-locally owned enterprises are similar to those working within indigenous multi-site operations (see Figure 4.3).

Decisions for which establishment managers are granted the most autonomy include the recruitment of external services, and the levels of both raw and finished stock which are maintained by the establishment. Although one-half of all establishment managers are involved in the recruitment of external services, the types of services required are typically oriented toward maintenance and repair, rather than the professional needs of the

**Table 4.7: Decision-Making Granted to Establishments of Non-Locally Owned Multi-Site Enterprises**

Decision	Office Where Decisions Regarding Establishments Are Made		
	Tasmanian Establishments	Tasmanian Establishments With Head Office Approval	Tasmanian <sup>1</sup> Head Office
<b>Employment Level</b>			
Enterprises			
No	-	-	34
%	-	-	100.0
<b>Production Level</b>			
Enterprises			
No	-	-	34
%	-	-	100.0
<b>Location of Product Sales</b>			
Enterprises			
No	-	-	34
%	-	-	100.0
<b>Sales Method</b>			
Enterprises			
No	-	-	34
%	-	-	100.0
<b>Source of Inputs</b>			
Enterprises			
No	-	-	34
%	-	-	100.0
<b>Product Design</b>			
Enterprises			
No	-	-	34
%	-	-	100.0
<b>Pricing Policy</b>			
Enterprises			
No	-	-	34
%	-	-	100.0
<b>Advertising Placement</b>			
Enterprises			
No	3	-	31
%	8.8	-	91.2
<b>Recruitment of External Services</b>			
Enterprises			
No	14	3	17
%	41.1	8.8	50.0
<b>Raw Stock Levels</b>			
Enterprises			
No	5	10	19
%	14.7	29.4	65.9
<b>Finished Stock Levels</b>			
Enterprises			
No	6	8	20
%	17.6	23.5	58.9
<b>Executive Recruitment</b>			
Enterprises			
No	2	-	32
%	5.8	-	94.2
<b>Labour Replacement</b>			
Enterprises			
No	10	-	24
%	29.4	-	70.6
<b>Labour Dismissal</b>			
Enterprises			
No	2	-	32
%	5.8	-	94.2
<b>All Decisions</b>			
Enterprises			
No	42	21	413
%	8.8	4.4	86.8

<sup>1</sup> Figures include decisions which may be ultimately made by group or divisional head offices of the parent organisation outside of Tasmania. Details of decision-making granted to the Tasmanian enterprise by the parent firm outside the state are given in Tables 5.5 and 5.6.

Source: Tasmanian Manufacturing Survey, 1986

establishment. Quite clearly, the recruitment of any professional services, such as advertising or market research, is made by senior management at either the head office in Tasmania or establishments of the parent organisation outside the state.

Compared to indigenous establishments, managers of establishments within non-locally owned enterprises are granted considerably less autonomy in areas of labour replacement and dismissal. While establishment managers within 59 per cent (N=23) of indigenous enterprises are involved in decisions regarding labour replacement (Table 4.3), only 29 per cent (N=10) of non-locally owned enterprises delegate these decisions to management at the establishment level (Table 4.7). Additionally, only two non-locally owned enterprises (compared to 13 indigenous firms) permit branch managers to make the majority of decisions regarding labour dismissal.

In general, two factors appear to suggest why senior managers within non-locally owned enterprises maintain greater control over decisions involving labour at the establishment level. First, there is very little division of authority within most non-locally owned enterprises given that only two of the 34 firms comprise separate operating divisions within Tasmania. By comparison, the eight indigenous enterprises containing separate operating divisions tend to delegate more authority to branch managers in areas such as labour relations, since the activities undertaken by establishments within each division are most often operationally independent of the Tasmanian head office. Second, establishments of non-locally owned enterprises are generally larger in terms of employment, and are characterised by higher rates of union membership than most indigenous enterprises. In most non-locally owned organisations employing a unionised workforce, senior managers located at the head office in Tasmania deal directly with all labour issues at the establishment level. This is particularly the case for export-oriented enterprises in which senior managers in Tasmania are primarily responsible for maintaining efficient production operations, and are less involved in either product or market development.

Similar to many indigenous enterprises, the level of autonomy granted to establishments of non-locally owned firms tends to vary according to the type of market

strategy being followed by the operation in Tasmania. In particular, managers at the establishment level often have more control over the day-to-day operations of the plant when the activities undertaken are independent of other establishments within the enterprise. For example, resource-based establishments of enterprises selling either within or outside the state market are generally set up as independent production operations. Typical of these enterprises are the two firms manufacturing ready-mix cement. Each comprises a number of duplicate establishments located throughout the state which serve their own immediate local market. Although establishment managers are autonomous only in terms of the day-to-day functioning of their own establishment, they are ultimately responsible to the Tasmanian head office for the profitability of their own production operations.

Autonomy at the establishment level for day-to-day operations also tends to be higher within enterprises manufacturing non-resource based durable goods (such as metal roofing, canvas blinds and aluminium windows) for sale within the Tasmanian market. Once again, many of these enterprises contain establishments which are operationally independent of one another, with each establishment manufacturing a similar range of products for sale within its immediate market area. Managers of each establishment are responsible for receiving customer orders, organising local production, and preparing customer accounts which are then typically forwarded to the head office of the Tasmanian enterprise for further processing.

Establishments characterised by lower levels of autonomy over routine activities are generally attached to enterprises manufacturing either consumable goods for the Tasmanian market, or filtered-down products for markets outside the state. In both cases, branch establishments within most enterprises are operationally linked to the enterprise head office, increasing their dependence upon the decisions of the senior managers responsible for statewide operations. Of the 11 enterprises manufacturing consumable goods for the state market, seven manufacture at only a single location. In total, 18 of the 20 branch establishments which are controlled by these enterprises throughout Tasmania are simply storage and distribution centres for products manufactured at the head office

location. Managers of each distribution facility have virtually no authority over the operations of their establishment since the activities undertaken are entirely dependent upon the efforts of production and marketing personnel located at the Tasmanian head office. Similarly, the activities of branch establishments within the two filtered-down operations are dictated entirely by the production schedules set at the enterprise head office. Both Cadbury's milk depot near Burnie and Repco's two branches in Launceston are wholly integrated into a single state production operation directly under the guidance of senior head office management.

In order to assess the power which managers at the establishment level possess, in terms of their control over the acquisition of finance capital, senior executives of each enterprise were asked to provide details concerning the process by which decisions were taken and finance was arranged for capital and non-operating investments of more than \$5,000. Specific inquiry was made into all major investments undertaken at establishments of the Tasmanian enterprise between 1980 and 1985. Separate details were provided for investments in production equipment, non-production equipment, transport equipment, land and buildings, and investments in equities and securities. As was discovered for indigenous enterprises, no decisions regarding any major investments were made by managers of the Tasmanian operation based outside of the state head office. In addition, all non-operating investments undertaken by the 34 enterprises were made on behalf of the Tasmanian enterprise rather than any one individual establishment within the firm. All finance required for investments at branch and head office establishments was also arranged by senior managers at either the Tasmanian head office or establishments of the parent company outside the state.

In summary, evidence from the interviews clearly demonstrates that managers of branch establishments within non-locally owned enterprises possess only minimal power in relation to more senior management located at the enterprise or group head office. The decision-making functions delegated to branch managers are, in most cases, limited to areas of routine production scheduling and customer service activities. In terms of their ability to secure the necessary financial operating resources, branch managers have

virtually no input into the level or types of investment which are undertaken by the enterprise in Tasmania. The following section summarises the changes in power relations which have taken place between branch and head office management in Tasmania since 1980.

#### Changes Within Power Structures Since 1980

In general, the overall level of power held by managers of branch establishments within non-locally owned enterprises has changed very little since 1980. However, the general trend among non-locally owned enterprises over the period has been to centralise both physical activities and functional responsibilities at the Tasmanian head office location. In part, this is related to the rationalisation of activities within Tasmania which has been undertaken by many enterprises in response to poor trading conditions since 1980.

Between 1980 and 1985, functional responsibilities (including production, retailing, distribution, maintenance, or intra-organisational service activities) between branch establishments and the head office in Tasmania were altered within 12 of the 36 multi-site enterprises. Of these 12 enterprises, five have altered only the range of activities undertaken outside the head office, through the opening or closure of establishments. Two of these enterprises, a vegetable processor based in the north west region and the Launceston manufacturer of engine bearings, have each built a new establishment near their head office to provide additional space for their existing operations. The three remaining enterprises, two forest products companies and a manufacturer of ready-mix cement, have each closed an establishment over the period, transferring their operations to other existing establishments within the Tasmanian enterprise.

Through various strategies involving the rationalisation and centralisation of activities, seven of the 12 enterprises have reduced the degree of power and autonomy maintained by their branch establishments. Three of these enterprises have rationalised their Tasmanian operations by both reducing the number of manufacturing establishments and centralising the responsibilities for a number of business services at the Tasmanian



head office location. They include The Cascade Brewery Company, and two smaller Hobart-based enterprises manufacturing aluminium windows and marine products respectively. In 1980, Cascade transferred all of its payroll and a number of general accounting functions from its brewery in Launceston to the Hobart head office, following the installation of a computer system designed specifically to handle the accounting needs of the two breweries. Three years later, Cascade further centralised its activities when it closed its fruit juice plant in the Huon Valley, transferring the operation to Hobart where all non-alcoholic beverages within the enterprise are now produced.

In response to declining sales within Tasmania, the two smaller Hobart-based enterprises have undertaken a major rationalisation of their production operations since 1980. Prior to these rationalisations, both enterprises operated an establishment in each of the state's three regions. In 1982, the manufacturer of marine products closed its sales branch in Launceston, retaining its manufacturing branch in Burnie to service the entire north and north west sales regions. Two years later, further reductions in trading profit forced the company to cut its Burnie workforce by one-half. As a result of the employment reduction, all accounting for the north and north west regions was transferred from the Burnie plant to the head office in Hobart. In 1984, the manufacturer of aluminium windows ceased manufacturing operations at both its Launceston and Devonport establishments. Employment at Devonport was reduced by one-third (6 persons) while the Launceston establishment was closed entirely. Some of the redundant manufacturing workers from the north were offered employment at the enterprise's only remaining factory in Hobart. In addition to losing its entire manufacturing workforce, the Devonport establishment lost two senior managers responsible for production and marketing within the north west region. After seven years as a semi-autonomous production and sales unit, the Devonport operation was reduced to a showroom and installation outlet dependent entirely upon products manufactured in Hobart.

While not actually closing any establishments, each of the four remaining enterprises have centralised various responsibilities at its head office in Tasmania. Three of these

enterprises, the manufacturer of Coca-Cola products, a Launceston firm making corrugated boxes, and the state's largest processor of poultry products each centralised accounting, invoicing and stock control functions following the installation of a computer system linking its branch establishments to the state head office. Although only a few jobs were lost as a direct result of the computer systems, the responsibilities held by branch managers were reduced, increasing their reliance upon management and administrative decisions made at the Tasmanian head office. The fourth enterprise, a large fish processing operation headquartered near Hobart, reduced its number of exporting establishments within the state from six to four in 1981. A decline in the volume of fish caught has forced the enterprise to rationalise its processing operations. The two establishments which have forfeited the continuation of their export licences are currently storage centres for fish which are eventually transferred to other establishments for processing. The loss of export licences among branch establishments has focused greater authority at the head office location which has become more dominant as the operation's central processing facility. Further reductions in the volume of processing would threaten the viability of the three remaining branch establishments still holding export licences.

Although only a few enterprises have altered the power relations between branch and head office establishments since 1980, the changes which have occurred demonstrate a general movement in power away from branch establishments within enterprises responding to a continuing downturn in business activity. Evidence from the survey suggests that this has particularly been the case within enterprises manufacturing for the state market. In total, six of the seven enterprises in which power has shifted from branch establishments to the head office are oriented toward the local market.

The final section of this chapter examines the organisational and power relationships between manufacturing enterprises in Tasmania. Of particular concern are the power relationships which emerge from subcontract, franchise, licence, and market arrangements operating within the state's manufacturing sector.

#### **4.3 RELATIONSHIPS BETWEEN MANUFACTURING ENTERPRISES IN TASMANIA**

Since 1980, the increasing amount of research adopting a business organisation approach has encouraged a greater interest in the nature of both formal and informal operating relationships between business enterprises. This growing interest has manifested itself in an increasing number of theoretical (Taylor and Thrift, 1981a, 1982a; Imrie, 1986; Duché and Savey, 1987) and empirical (Sabel, 1982; Storey, 1982; Taylor and Kissling, 1983; Taylor, 1984d, 1986; McLoughlin, 1985) studies into the relationships between small and large firms. As large business organisations have restructured their operations since the mid-1970s, new forms of production capital have emerged in which the role of small and medium-sized firms has changed considerably. In particular, the operations of small and large firms have become more interdependent through the establishment of subcontract, franchise, and licence arrangements.

Within the manufacturing sector, subcontracting is clearly the most visible means of interaction between large and small enterprises. While a number of early empirical studies including Florence (1948), Yamanaka and Kobayashi (1957), Lydall (1958), and Richardson (1972) demonstrate that subcontracting was well established in many countries long before the 1970s, it has not been until recently that research has addressed the subject in relation to more intense theoretical issues surrounding the nature of power which develops between enterprises through subcontract arrangements (Taylor and Thrift, 1981a, 1982a, 1983c; McLoughlin, 1985).

Since 1980, most theoretical and empirical research has focused upon the advantages which large firms are able to gain through subcontract arrangements with enterprises operating in the small firm sector. For instance, Storey (1982) suggests that subcontract relations enable large firms to gain access to the developments made within small high-technology based operations. Compared to high-technology production undertaken by the larger business enterprise, smaller operations are often more flexible in terms of meeting the specific design and production requirements of a rapidly changing market. Research by Taylor (1984d, 1986) on the Fijian economy demonstrated that large business

organisations are, through the externalisation of production segments, able to take advantage of lower wage structures within smaller non-unionised manufacturing enterprises. As large firms externalise production segments, they are also able to externalise a certain amount of the risk involved with the maintenance of capital overheads during periods of recession (Taylor and Thrift, 1981a; Scott, 1984).

Clearly, the actual power relations which emerge from subcontract arrangements can only be assessed through an intensive study at the enterprise level. The view that small firms are simply passive elements in any subcontract relationship cannot be held without first examining the precise nature of the inter-firm relationships taking place. Small firms possessing a particular expertise may, in fact, be given a considerable degree of freedom in areas such as product design and work relations (Rainnie, 1985). Moreover, subcontract arrangements present a number of potential benefits to the smaller firm. For instance, small firms manufacturing finished goods on a subcontract basis may benefit from the established marketing and distribution networks of the larger company to which they are supplying manufactured products. In addition, small firms manufacturing componentry for larger firms under long-term supply contracts are able to estimate more precisely their production cost margins given that they know in advance the revenue for their finished products.

Though more common within the retailing sector, franchise and licence arrangements are also important in terms of the unequal power relations between business enterprises within the manufacturing sector. Within manufacturing, these arrangements are predominantly limited to licence agreements whereby manufacturers are granted exclusive rights to produce goods (eg. soft drinks) requiring an essential ingredient or technical support provided by the licensor (Johns et al, 1983). While such arrangements typically provide a number of benefits to both the franchisor and franchisee, ultimate power within the relationship is clearly held by the franchisor. By granting franchises to smaller firms, expansion is possible with minimal risk and investment since the franchisee is usually responsible for the purchase and maintenance of all production equipment. In addition, franchise arrangements provide the franchisor greater control over product marketing than

would otherwise be possible if sales of finished products were entirely dependent upon the use of distributors and wholesale agents. Benefits to the franchisee may include advertising, technical assistance, and low interest loans provided by the franchisor. Depending upon the type of arrangement, franchisees can also be granted exclusive territorial marketing rights for the products manufactured under licence agreement.

The following paragraphs summarise the nature of subcontract, franchise, licence, and market arrangements within Tasmanian manufacturing, and the implications these have for power relations between firms.

#### **4.3.1 Subcontract Relations**

As part of the manufacturing survey, senior executives of each enterprise were asked to provide details concerning their involvement in subcontract relations with other firms. For the present study subcontracting is defined as an arrangement whereby '...the firm offering the subcontract requests another, legally independent firm to carry out the processing of a material, component, part, or subassembly for it, according to particular specifications provided by the firm offering the subcontract' (Imrie, 1986, p. 953). Subcontract arrangements can be made on either a formal or informal basis. Formal arrangements typically involve written contractual agreements between the two companies detailing the specifications of the product or component to be produced, and the period over which the contract extends. Informal arrangements are generally shorter in duration, and involve the use of subcontractors for the completion of one-off or batch product orders.

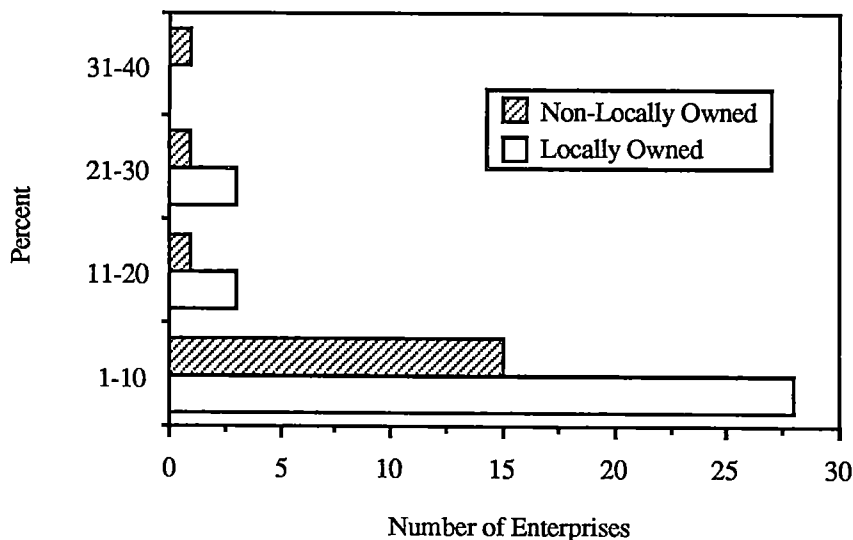
Questions concerning subcontract relations were broken into two sections. First, respondents were asked whether the enterprise subcontracts a portion of their manufacturing work out to other firms in Tasmania or on the mainland. Managers of enterprises engaged in such arrangements were then asked to provide further details, including the importance of these arrangements to the operation of the enterprise, the number of firms to which work is subcontracted out, and the percentage of total manufacturing costs which are accounted for by subcontract payments to other firms.

Second, respondents were asked whether their enterprise undertook subcontract manufacture for other firms. Once again, further details were obtained for enterprises involved in subcontract arrangements. Of particular importance is the type of manufacture undertaken, the number and location of firms for which the enterprise manufactures, and the percentage of total turnover accounted for by subcontract income.

#### Enterprises Subcontracting Work Out to Other Firms

In total, 42 per cent (N=34) of indigenous and 22.2 per cent (N=18) of non-locally owned enterprises included in the study subcontract a portion of their manufacturing requirements to other firms. While the percentage of enterprises subcontracting out work to other firms is quite high, particularly among indigenous operations, the actual volume of work subcontracted out by most indigenous and non-locally owned enterprises is quite low. Of the 52 enterprises, only six indigenous and three non-locally owned firms subcontracted out more than 10 per cent of their manufacturing requirements on a total production cost basis (Figure 4.11).

**Figure 4.11: Subcontract Payments as a Percentage of Total Manufacturing Costs, 1985**



Source: Tasmanian Manufacturing Survey, 1986

Discussions with senior executives revealed several dominant types of subcontract arrangements undertaken with other firms. Extending the conceptualisation developed by

Watanabe (1972), four types are identified. These include capacity subcontracting, specialist subcontracting, occasional use subcontracting, and permanent subcontracting.

#### Capacity Subcontracting

In total, eight of the 52 enterprises use external contractors to provide the additional output capacity needed to meet production deadlines or seasonal variations in product demand. Four of these are indigenous enterprises which, on an irregular basis, utilise smaller firms within their local area for the batch manufacture of product componentry. The type of work subcontracted out by these firms includes electrical and metal fabrication, welding, machining, and joinery. These subcontract relationships are typically short in duration, as the contracts are often geared toward the completion of individual product orders.

A further three enterprises use subcontractors to provide additional output during peak demand seasons. Included among these is a large non-locally owned vegetable processor in the north west region which purchases a small quantity of processed green vegetables from another large manufacturer. The other two enterprises comprise a processor of animal skins and hides which subcontracts out a portion of its wool packing requirements, and a building products firm which utilises subcontractors to manufacture awnings and annexes during its peak summer season.

The final enterprise requiring additional output capacity is one of the state's largest non-locally owned woodchipping companies which purchases woodchips from small indigenous sawmillers on an ongoing basis. In total, however, the woodchips purchased from these smaller companies account for less than 5 per cent of the larger firm's total output.

#### Specialist Subcontracting

Seven indigenous and seven non-locally owned enterprises subcontract out manufacturing requiring specialist skills or machinery not available within the enterprise. Most subcontracting involves processes undertaken in the final stages of production, often

increasing the value-added component of the particular product. The majority of specialist subcontracting is also geared toward one-off or batch product orders rather than formal contracts covering an extended supply period. Of the 14 enterprises using specialist subcontractors, five use firms located outside Tasmania. Mainland companies are engaged as subcontractors for processes including the tinting of optical lenses, the dyeing of filament fabrics, the manufacture of high quality men's wool suits, and for high quality photographic reproductions. In addition, an enterprise located in Hobart subcontracts the printing of colour magazines to a firm located in Singapore. Each of the five enterprises utilising specialist subcontractors outside the state is reliant upon such relationships for only a small percentage of its total manufacturing requirements.

The nine remaining enterprises use only specialist subcontractors located within Tasmania. Five of these firms are small to medium-sized indigenous operations which subcontract out a small portion of their finishing requirements to other indigenous enterprises located within their local region. The processes involved include electroplating, the laminating of timber products, and precision machining. Only one of these firms, a Hobart manufacturer of marine winches, subcontracts out a major portion (25 per cent) of its total manufacturing requirements. The work subcontracted out by this firm involves the casting and plating of metal components.

#### Occasional Use Subcontracting

Twelve indigenous and three non-locally owned enterprises subcontract out manufacturing for non-specialist processes which they require only on an occasional basis. Consequently, the percentage of total manufacturing costs accounted for by work subcontracted out is very low ( $\bar{x}$ =6.8 per cent) for these enterprises. The irregularity of the required processes precludes the investment in additional equipment or personnel which is necessary to carry out the production internally. Given that all but two of the 15 enterprises employ fewer than 30 persons, the majority of firms are not financially capable of carrying the costs of under-utilised personnel or capital equipment. The types of production contracted out are generally labour intensive, and include sheet metal work,



timber moulding, upholstery, and canvas fabrication. For these non-specialist types of processing, there are usually a number of potential subcontractors from which to choose within the local area. Virtually all of the subcontract work undertaken for these enterprises is limited to the requirements of one-off product orders. As eight of the 15 enterprises are manufacturers of building products, much of the subcontract work (eg. aluminium fabrication) is also undertaken on-site at the customer's location.

### Permanent Subcontracting

Whereas most capacity, specialist, or occasional use subcontracting is short-term in nature, and arranged on an informal basis, the final nine indigenous and six non-locally owned enterprises subcontract out a portion of their manufacturing work on a permanent basis. Once again, the volume of work subcontracted out by most enterprises is quite small, as only four of the 15 companies subcontract out more than 10 per cent of their total manufacturing requirements on a total production cost basis.

Eleven of the 15 enterprises are engaged in formal subcontract relationships with single subcontractors. They are eight enterprises manufacturing food products, a manufacturer of denim jeans located in Devonport, and a small heating and air conditioning company in Hobart. Of the eight food products manufacturers, three subcontract out a portion of their food preparation, and five use subcontractors for the packaging of finished products. Only two enterprises, manufacturers of dried fruit products and high energy health drinks, use subcontractors located outside Tasmania. The manufacturer of denim jeans subcontracts out all of its fabric pre-washing to a local laundry company. The Hobart-based heating and air conditioning enterprise, a two person family operation, subcontracts out all of its sheetmetal work (accounting for nearly 30 per cent of total production costs) to another indigenous firm in the Hobart area.

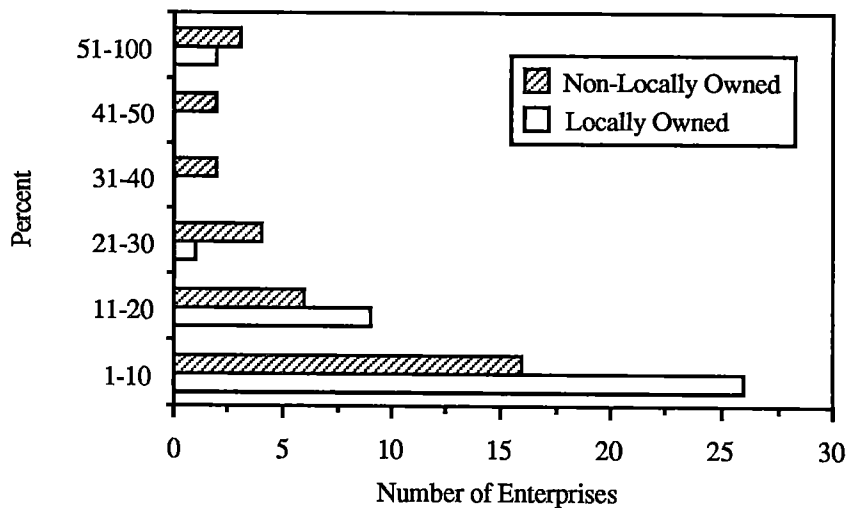
The four remaining enterprises depend upon informal arrangements with a number of different subcontractors within Tasmania. Three of these enterprises, manufacturers of mining equipment, electronic timing devices and building products, each subcontract out a small portion of their steel fabrication requirements. The fourth enterprise, a ready-mix

cement company, purchases a small amount of cement from its competitors in certain areas of the state where the enterprise does not operate its own production facility.

#### Enterprises Undertaking Subcontract Work

Of the 166 enterprises included in the study, 47 per cent (N=38) of indigenous and 39 per cent (N=32) of non-locally owned firms undertake subcontract manufacture for non-related companies. The income received from subcontract manufacture accounts for an average of 11.9 per cent of turnover among indigenous, and 20.5 per cent of turnover among non-locally owned enterprises. In total, however, only 15 non-locally owned and six indigenous enterprises are reliant upon subcontract arrangements for more than 20 per cent of their total operating turnover (Figure 4.12).

**Figure 4.12: Subcontract Income as a Percentage of Total Turnover, 1985**



Source: Tasmanian Manufacturing Survey, 1986

Of these, eight of the 15 non-locally owned, and three of the six indigenous enterprises, are also reliant upon fewer than six customers for all subcontract income received. In general, there are two dominant types of subcontracting undertaken by Tasmanian manufacturers; these are enterprises subcontracting for other manufacturers, and enterprises subcontracting for the retail trade industry.

### Enterprises Subcontracting For Other Manufacturers

The largest number of enterprises undertaking subcontract work (N=51) manufacture either finished componentry or semi-processed materials for other manufacturing firms. The 25 enterprises manufacturing finished componentry include 14 indigenous and 11 non-locally owned operations. The major product groups within which component subcontracting takes place include wooden joinery and furniture, metal-based products, food products, and glassware (Table 4.8).

**Table 4.8: Subcontract Activities Undertaken for Other Manufacturing Enterprises, 1985**

<u>Finished Componentry</u>	<u>Semi-Processed Materials</u>
Wooden joinery & furniture	Fabricated metals
Metal-based products	Food products
Food products	Textiles
Glassware	Miscellaneous
Miscellaneous	Chemicals
Plastics	Seed cleaning
Commercial printing	
Soaps	
Bitumen	

A total of nine enterprises which reported undertaking subcontract work manufacture wooden joinery and furniture components. Six of these are small to medium-sized indigenous operations which are occasional subcontractors to other local manufacturers and enterprises within the construction industry. Virtually all of the subcontracts entered into are informal in nature, with both the product specifications and duration of the production agreement being determined by the requirements of a single client. Two of the remaining three enterprises are non-locally owned firms which manufacture furniture componentry on a formal, long-term subcontract basis to manufacturers on the mainland. Both of these enterprises are reliant upon subcontract work for over 20 per cent of their total annual turnover. The final enterprise, a large indigenous timber company, also supplies a small quantity of finished componentry to mainland furniture manufacturers.

Five enterprises manufacture metal-based products on a subcontract basis. Three of these are small non-locally owned operations which supply building products such as metal ducting, aluminium windows, and shopfittings to other manufacturing firms, engineering companies, and building contractors within Tasmania. One of the operations, a Hobart-based manufacturer of aluminium windows, is the nominated state government subcontractor to mainland construction and engineering firms which successfully tender for work within Tasmania. However, the volume of local subcontract work filtering through from state government tenders to mainland enterprises has fallen sharply since 1980. In conjunction with other states, the Tasmanian government has encouraged greater private sector competition for inter-state tenders by relaxing the minimum requirements for local material and labour content on contracts awarded to mainland firms.

The two other enterprises undertaking the subcontract manufacture of metal-based products are a marine engineering company located near Hobart, and the manufacturer of automotive engine bearings in Launceston. The subcontract manufacture of anchor winches and hydraulic steering equipment accounts for nearly 60 per cent of the marine engineering company's total turnover. At present, all subcontract agreements are held with a small number of ship building enterprises located in the US and Taiwan. Although the Tasmanian enterprise is largely dependent upon only a few formal subcontract arrangements, each is based upon a multi-year contract. The Launceston manufacturer of engine bearings and structural parts for the automotive industry is dependent upon subcontract manufacture for nearly one-third of its annual turnover. However, the enterprise has been successful in securing long-term subcontract agreements with over 10 separate automotive manufacturers in Australia and overseas. The company has also developed an extensive range of original equipment parts, allowing it to compete successfully as a subcontractor within a number of automotive market segments worldwide. A recent example has been the enterprise's success in securing lucrative contracts with Borg Warner, supplying components for automotive transmissions manufactured in Australia and the US.

Of the remaining 11 enterprises engaged in component subcontracting for other manufacturers, five act as subcontractors for mainland firms and six subcontract only in Tasmania. Two enterprises producing glass products and three firms manufacturing food and beverage products act as subcontractors for mainland customers. However, only the two manufacturers of glass products are reliant upon subcontract income for a large share of their total turnover. One of these enterprises, a non-locally owned firm near Hobart, is employed by two mainland firms as a subcontractor manufacturing glass drink bottles. Compared to the two mainland firms which operate large production operations, the smaller plant facility of the Hobart manufacturer is ideally suited for small batch production runs of specialised containers. In 1985, subcontract manufacture for the two firms represented 35 per cent of the Tasmanian enterprises' turnover. The second glass producer, a small indigenous operation, undertakes subcontract work for mainland manufacturers of scientific glassware. Structured very much as a craftsman operation, the Tasmanian enterprise consists of a father and son who run the business from their home in the Huon Valley south of Hobart. The family operation was transferred from New South Wales in 1980 because the family preferred the lifestyle available in Tasmania. Although the Tasmanian market for scientific glassware is quite limited, the manager of the enterprise used his contacts on the mainland to secure a number of permanent subcontract arrangements.

The six enterprises undertaking subcontract work for manufacturers only in Tasmania are each indigenous operations employing fewer than 50 persons. Products manufactured on a subcontract basis include plastic componentry, domestic soaps, packaging labels, and bitumen. Of these, only the manufacturer of packaging labels is involved in permanent subcontract relationships. Accounting for nearly 20 per cent of the operation's turnover, the enterprise produces labels for a number of Tasmania's large non-locally owned food and beverage manufacturers, including Cadbury Schweppes, The Cascade Brewery Company, and Safcol. Each of the five other indigenous enterprises undertakes subcontract work on an irregular basis. Most of these relationships are with other small to medium-sized indigenous manufacturers which occasionally require external

firms for capacity or specialist subcontracting.

In addition to the 25 enterprises manufacturing finished componentry, 15 indigenous and 11 non-locally owned enterprises provide semi-processed materials to non-related manufacturers on a subcontract basis. The major product groups within which the subcontract manufacture of semi-processed materials occurs include fabricated metals, food products, and textiles (Table 4.8). The largest number of enterprises (N=12) operate as subcontractors in the fabricated metal products sector. Most of these are indigenous engineering and metal products enterprises which undertake a small amount of subcontract manufacture for other indigenous firms within Tasmania. The types of processing carried out include the fabrication, machining, painting, and welding of various metal products. The volume of subcontract work made available to the 12 enterprises is highly erratic throughout the year. Consequently, most enterprise managers consider subcontracting to be of only minor importance relative to the firm's overall operation.

A total of eight Tasmanian enterprises act as subcontractors for the semi-processing of food products for other manufacturers. One-half of these are enterprises which undertake a small amount of packaging for other Tasmanian firms. Two of these, a non-locally owned firm (Lactos Pty Ltd) producing speciality cheeses and the state's largest indigenous dairy products co-operative (UMT Ltd), are involved in a reciprocal subcontract arrangement. Lactos packs cheese manufactured by UMT while UMT packs the small volume of butter produced by Lactos. Since 1980, both enterprises have rationalised segments of their production operations, specialising in a smaller number of higher value-added dairy products. Consequently, each enterprise has subcontracted out the packaging of those products which have become less important to the operation as a whole, as investment in capital equipment has focused upon new lines of production. The other two enterprises involved in the subcontract packaging of food products are the state's largest poultry processor, and a large manufacturer of dried fruit and baking products. Both enterprises package a small volume of product for one of their competitors which does not operate a packaging line of its own. In both cases, however, the competitor controls only a minor segment of the market served by the larger enterprise.

The four remaining enterprises subcontracting for other manufacturers within the food products industry are engaged in the actual processing of foodstuffs. Products produced under subcontract agreements include fruit concentrate, filling for meat pies, pastry, and malt products. The enterprises manufacturing meat filling and pastry are large indigenous operations which act as subcontractors to smaller Tasmanian owned firms. These smaller firms have entered into subcontract arrangements as an alternative to purchasing equipment and hiring additional labour necessary to produce all of their products internally. Subcontracting out a portion of their manufacturing requirements provides the smaller manufacturers greater flexibility in their operations, given that their cash flow is less committed to the purchase and maintenance of capital equipment. Moreover, the larger indigenous operations can produce the required inputs at a much lower cost since their equipment is geared for longer batch production runs.

The enterprises manufacturing fruit concentrate and malt products are dependent upon subcontract income for a large share of their total turnover. The firm producing malt products is the only manufacturer in Tasmania to sell its entire output under a single subcontract agreement. Employing only six persons, the small non-locally owned enterprise acts as subcontractor to Wander Australia Ltd which operates a factory producing Ovaltine near Devonport. Since 1965, the two factories have been located adjacent to one another. Although the two companies are legally independent, Wander owns the land upon which the malt factory is located and, since 1972, the plants have been physically linked by an enclosed conveyer system used to feed malt products into Wander's main processing system. The arrangement between Wander and the malt producer is one of the few strong power relations which have emerged from subcontract relationships in Tasmania.

The manufacturer of fruit concentrate, an indigenous firm located in southern Tasmania, has acted as a subcontractor to a number of mainland food manufacturers since the early 1970s. Subcontract agreements account for over 20 per cent of the enterprise's output. Through such agreements, the indigenous firm has managed to fill a profitable market niche not served by segments of Australia's larger food products companies.

Selling a large share of its output under long-term contracts with mainland manufacturers, the Tasmanian enterprise is less vulnerable to the fluctuations in open-market competition from overseas, and particularly from New Zealand, manufacturers. In addition, the difficulties associated with marketing Tasmanian products inter-state are avoided by selling directly to other manufacturers.

The six remaining enterprises subcontracting semi-processed materials for other manufacturers are four textile firms, an enterprise manufacturing flour and stock feed, and an industrial chemicals manufacturer. For all six enterprises, the income received from subcontract manufacturing represents less than 20 per cent of total annual turnover. Three of the four textile firms are engaged as subcontractors by mainland manufacturers. Processes carried out under subcontract arrangement include weaving, yarn preparation, wool scouring, and fabric printing. The fourth textile firm is a non-locally owned enterprise which undertakes some dyeing of fabrics for another non-locally owned operation in Tasmania. With the exception of the enterprise engaged in wool scouring, the subcontract work undertaken by Tasmanian textile firms is predominantly on an irregular basis, and is oriented toward the batch production of materials required for individual product orders. The indigenous manufacturer of flour and stock feed occasionally acts as a subcontractor to other indigenous stock feed producers, cleaning seed at its plant near Launceston. The final enterprise, a small non-locally owned chemicals manufacturer, is occasionally subcontracted to mix chemicals for APPM's paper mills at Burnie and Wesley Vale.

#### Enterprises Subcontracting For The Retail Trade Industry

In addition to the 51 enterprises acting as subcontractors to other manufacturing firms, eight indigenous and 11 non-locally owned enterprises undertake subcontract manufacture for firms in the retailing industry. In particular, two types of subcontracting are identified; they are the manufacture of generic consumable products for large food retailers, and the manufacture of durable goods for hardware and rural merchandising outlets (Table 4.9).



**Table 4.9: Subcontract Activities Undertaken for Enterprises Within The Retail Trade Industry, 1985**

<u>Generic Consumable Products</u>	<u>Hardware &amp; Rural Merchandising</u>
Bread & crumpets Soft drinks Fruit juice Poultry products Vegetable products Ice cream Cleaning agents Paper towels and napkins	Timber & joinery Stained glass Security fencing Aluminium doors & flyscreens

Following trends established overseas during the 1970s, Australian retailers have only recently moved into the marketing of generic products under their own brand names (eg. 'Plain Wrap', 'Farmland', 'Home Brand', and 'No Frills'). Contracts held with enterprises manufacturing generic products clearly benefit the large retailers which are able to maintain absolute control over the marketing and pricing of the finished product. Through subcontract arrangements, large retailers have increased their power over manufacturers by effectively forcing them to compete against products sold under the manufacturers' own brand names which return a higher per unit profit. However, subcontracts also benefit manufacturers which are guaranteed market access through the major retailers. This access is especially important for most smaller indigenous manufacturers in Tasmania which are otherwise forced to pay high listing fees and compete against larger national producers for the right to sell products under their own brand name through the state's two largest retailers, Coles-Myer Ltd and Woolworths. In particular, listing fees imposed by the major retailers are a significant barrier to sales in chain stores by small consumable goods manufacturers (Dougherty, 1987). Within Tasmania, operating segments of Coles-Myer and Woolworths control all but a minor percentage of the state market for food products and household consumables. Success as a manufacturer of these products clearly depends upon access to these retailers.

The largest number of Tasmanian enterprises (N=14) acting as subcontractors to the retail trade industry manufacture generic consumable products for either Coles-Myer or

Woolworths. Products manufactured include food products, domestic chemicals, and paper goods. Of these 14 enterprises, nine manufacture generic products which are sold by retailers only within Tasmania. They are three indigenous operations manufacturing bread and crumpets, and single indigenous enterprises producing fruit juices, and domestic soaps and disinfectants. In addition, two non-locally owned enterprises manufacture generic soft drinks, and single non-locally owned firms manufacture generic paper and poultry products. Contracts for all generic products manufactured by non-locally owned enterprises are arranged outside Tasmania by their parent head office. In most cases, subcontracting undertaken by non-locally owned enterprises in Tasmania is part of a national contract arrangement between major retailers and the enterprise's parent organisation. Five non-locally owned enterprises manufacture generic products in Tasmania which are distributed by Coles-Myer and Woolworths outside the state. They are three enterprises processing canned and frozen green vegetables, and single enterprises manufacturing potato and ice cream products. Since 1980, the percentage of turnover accounted for by sales of generic products has increased within each of the 14 enterprises. In 1985, sales of generic items accounted for 14 per cent of average turnover among these operations.

The remaining five enterprises acting as subcontractors to retailers each manufacture products which are sold through hardware and rural merchandising outlets under the retailer's brand name. Products manufactured under subcontract agreement include dressed timber, joinery, stained glass, security fencing, and aluminium doors and flyscreens. With the exception of dressed timber and security fencing, subcontract manufacture is primarily linked to the requirements of one-off customer orders placed through the retail outlet. Manufacturers are engaged as either specialist subcontractors (eg. for the manufacture of stained glass) or occasional use subcontractors where retail outlets cannot maintain profitably the machinery or staff required to undertake the manufacturing themselves. Only one of the five enterprises, a BHP subsidiary manufacturing security fencing, is engaged as a subcontractor to retailers outside Tasmania.

### Market Dependency Relationships

While not considered as engaged in subcontracting per se, nine small enterprises, employing 85 persons in Tasmania, are linked to larger firms through market dependency relationships. Manufacturing products for use by other manufacturers, these small enterprises are reliant upon one or two customers for over one-half of their entire turnover. Given the limited range of manufacturing activities undertaken in Tasmania, the loss of these customers would very likely force the small manufacturers to cease production operations in the state. Of the nine enterprises which are dependent upon only one or two large firms, five are engaged in the manufacture of packaging materials, three manufacture products for APPM and ANM's paper operations, and one enterprise manufactures food gases for Tasmania's soft drink industry (Table 4.10).

The five packaging enterprises are each small non-locally owned operations located in either the north or north west region of the state. Products manufactured include steel drink cans, paper sacks, solid fibre cans, and rolled paper tubes. Each was established prior to 1970 in order to service a growing packaging market in Tasmania. The high freight costs of shipping finished packaging materials from the mainland to Tasmania encouraged the development of an industry which is largely geared toward the light fabrication of finished componentry. The majority of material requirements are purchased from establishments of the parent company outside the state which have undertaken more complex processing such as moulding and printing.

Typical of the small packaging enterprises is J. Gadsden Pty Ltd, a branch of one of Australia's oldest and largest packaging groups. Located in Devonport, the Tasmanian enterprise was established in 1956 to manufacture four gallon steel cans for the vegetable, canned fruit and jam industries. At the time, there was clearly no doubt as to the viability of a Tasmanian fabrication plant since these food products industries sold the majority of their products in mainland and overseas markets. By the mid-1970s, however, Tasmania's jam industry had collapsed, and the major vegetable processors moved away from cans to plastics packaging used for the increasing amount of dehydrated and frozen products being manufactured. With the decline in customers selling to export markets,

**Table 4.10: Market Dependency Relationships Within Tasmanian Manufacturing**

Small Firms		Large Firms
<b><u>Packaging</u></b>		
<b>J. Gadsden Pty Ltd</b> Devonport 3 piece steel drink cans	→	<b>Coca-Cola Bottlers (Tasmania)</b> Launceston Soft drinks  <b>Cascade Brewery Co Ltd</b> Hobart Beer and fruit juice
<b>St. Regis Bates</b> Devonport Multi-wall paper sacks	→	<b>Goliath Portland Cement</b> Railton Industrial Cement  <b>Tioxide Australia Ltd</b> Burnie Titanium dioxide pigments
<b>Rheem Containers</b> Launceston Steel drums	→	<b>TEMCO</b> Bell Bay Ferro alloys
<b>Containers Packaging</b> Devonport Solid fibre cans	→	<b>Wander Ltd</b> Devonport Ovaltine
<b>Pak Pacific Corporation</b> Ulverstone Rolled paper tubes	→	<b>Coats Patons</b> Launceston Domestic knitting yarns
<b><u>Food Gases</u></b>		
<b>Liquid Air Australia</b> Launceston Food gases	→	<b>Coca-Cola Bottlers (Tasmania)</b> Launceston Soft drinks  <b>Cadbury Schweppes Ltd</b> Drinks Division Hobart Soft drinks
<b><u>Materials for the Paper Industry</u></b>		
<b>North Western Flour Mills</b> Devonport Industrial flour ↓ <b>Tasman Starches</b> Devonport Industrial starches	→	<b>APPM</b> Burnie, Wesley Vale Writing and printing papers
<b>Aluminates (Tas)</b> Burnie Bleaching agents	→	<b>ANM</b> Boyer Newsprint

Source: Tasmanian Manufacturing Survey, 1986

Gadsden was forced to restructure its Tasmanian operation, focusing upon soft drink and beer companies manufacturing for the state market.

In 1977 Gadsden installed a small fabrication plant for three piece steel drink cans at its Devonport factory. The cans, shipped to Tasmania as flat steel plates, are moulded and printed at another branch of the parent company in Melbourne. Since 1977, all sales of cans have been taken by Coca-Cola's bottling plant in Launceston, and Cascade's two breweries in Launceston and Hobart. Since that time, however, a number of factors have contributed to a reduction of the market for steel cans in Tasmania. These include ACI's introduction of the popular 375 mL glass 'stubby' bottle in 1983, and Cascade's decision to utilise aluminium cans (purchased from the mainland) for beer produced in Launceston under the Boags label. Cascade's decision to package Boags in aluminium cans was made largely on the basis that aluminium cans were more suitable for exporting overseas. In addition, the increasing popularity of aluminium cans locally has threatened the viability of Gadsden's steel can operation in Tasmania. Unlike steel, the process technology developed for aluminium cans requires that printing and fabrication be carried out in a continuous production sequence. Small markets such as Tasmania can not justify the cost of capital equipment necessary to manufacture the aluminium product. To date, both Coca-Cola in Launceston and Cascade's brewery in Hobart have deliberately supported the steel can industry in Tasmania, despite the use of aluminium cans by their major competitors.

The three small enterprises which are dependent upon sales of manufactured products to APPM and ANM are two firms (North Western Flour Mills, and Tasman Starches) which combine to supply liquid starch, and another enterprise (Aluminates) which manufactures chemical bleaching agents (Table 4.10). North Western Flour Mills, an indigenous enterprise employing 25 persons, manufactures industrial flour which is used exclusively by the non-locally owned company Tasman Starches for the manufacture of liquid starches. The two operations are located adjacent to one another in Devonport, and have been manufacturing starch for APPM since 1972. Aluminates, another small non-locally owned enterprise, manufactures liquid sodium aluminate for both APPM and ANM. Employing 35 persons, Aluminates' operation is large enough effectively to

guarantee its position as the state's only manufacturer of chemical bleaching agents.

#### **4.3.2 Franchise, Licence, and Market Arrangements**

In addition to subcontracting, senior managers of each enterprise included in the study were asked to provide details regarding their company's involvement in franchise, licence and market arrangements. Given that a large percentage of Tasmanian manufacturing enterprises are engaged in a number of non-manufacturing activities, respondents were asked questions regarding both manufacturing and non-manufacturing arrangements with other firms. Questions regarding franchise and licence relationships were divided into two segments. First, managers were asked if the Tasmanian enterprise acts as a franchisee to non-related companies located either in Tasmania or outside the state. For enterprises involved in such relationships, further details were obtained concerning the nature of the franchise/licence, the number of firms involved, the length of time each relationship has been in operation, and the importance of the relations in terms of the Tasmanian enterprise's annual turnover. Second, managers were asked whether their enterprise acts as a franchisor to non-related companies. Once again, additional details were obtained concerning the nature of these relationships and their importance to the Tasmanian enterprise in terms of annual sales in order to assess the level of power relations between enterprises.

##### Enterprises Acting as Franchisees to Other Firms

In total, 17 per cent (N=14) of indigenous and 10 per cent (N=9) of non-locally owned operations included in the study act as franchisees to non-related companies. Of these 23 enterprises, 13 act as franchisees to Australian companies located on the mainland while 10 are involved in franchise relationships ultimately held with overseas companies. Two types of relationships are identified, regional sales franchises for products manufactured by other firms, and production licensing agreements under which Tasmanian enterprises manufacture and sell various products (Table 4.11).

**Table 4.11: Franchise and Licensing Activities Undertaken by Tasmanian Manufacturing Enterprises, 1985**

<u>Regional Sales Franchise</u>	<u>Production Franchise</u>
Hardware Optical lenses and equipment Gutters Plastic pipe fittings	Soft drinks Transport equipment Food products Plastic coatings Noise control equipment Electric boilers Aluminium blinds & extrusions Marine steering gear Building bricks Modular buildings Bedroom furniture Domestic knitting yarns Industrial footwear

#### Production Licensing

The largest number of enterprises (N=19) manufacture products under licence agreement. Although a wide range of products are manufactured, only nine enterprises rely upon sales of licensed products for more than 20 per cent of their annual turnover. Four of these are non-locally owned enterprises manufacturing soft drinks, engine bearings, and plastic coatings. The Tasmanian bottlers of Coca-Cola and Schweppes soft drinks compete against one another in the state market. Following the Second World War, the production franchises for both product lines were initially held by Tasmanian interests. In the case of Coca-Cola, three production franchises were granted in the late 1940s, dividing the state into three sales territories focusing upon production facilities in Devonport, Launceston and Hobart. In 1976, all three franchises were purchased by the Adelaide-based Coca-Cola Bottlers Ltd. Production was subsequently centralised in Launceston while distribution centres were maintained in Devonport and Hobart. In addition to Coke and Diet Coke, the Tasmanian enterprise manufactures nine other carbonated soft drink and mineral water products under licence agreement.

After operating for 15 years as an independent Tasmanian owned operation, the Hobart-based production franchise for Schweppes soft drinks was purchased in 1969 by the Melbourne-based Cadbury-Schweppes Pty Ltd. In 1976, Schweppes acquired the

Tasmanian franchise for Weight Watchers soft drinks as part of a national agreement between Cadbury-Schweppes and the H.J. Heinz Company. In 1985, another national contract resulted in the Tasmanian operation of Cadbury-Schweppes obtaining the production franchise for products manufactured under the Pepsi Cola label. Previously, this franchise was held by The Cascade Brewery Company Ltd. However, following Industrial Equity's takeover of Cascade in 1985 (see section 4.2.2), the Pepsi franchise was abandoned by Cascade in order to concentrate upon beer production.

Products manufactured under licence agreement by the Repco Bearing Company in Launceston account for nearly 80 per cent of the Tasmanian enterprise's annual turnover. In 1964, a production agreement for self-lubricating bearings and structural parts was reached with the UK firm Bound Brook Bearings. In 1981, powder metallurgy operations were enhanced further after a technical agreement was signed with the Japanese company Sumitomo Electric Industries. The agreement with Sumitomo is particularly important in terms of Repco's ability to develop products which are competitive against foreign manufacturers. Subsequent to the technical agreement, Repco won the contract to supply all of the powder metallurgy components used in Holden's 'world car' engine.

The non-locally owned manufacturer of plastic coatings sells 70 per cent of its manufactured products under licence agreement. The agreement is held with the Tasmanian enterprise's former parent company, Ceilcote (USA), which sold the operation in 1982 to an Australian company based in Sydney. Although Ceilcote sold off its international plastics division, it retained the production rights to a number of products which it had developed.

The five remaining enterprise which are dependent upon production licences for more than 20 per cent of annual turnover are indigenous operations manufacturing mining equipment, aluminium blinds, food products, noise control equipment, and modular building units. Each of these is a small to medium-sized enterprise, employing fewer than 50 persons. Only one enterprise, a manufacturer of underground mining vehicles, sells products outside Tasmania. Located in Burnie, the enterprise was established in 1974 as the Tasmanian service agent for Caterpillar (USA). In 1979, the Tasmanian manager



approached Caterpillar with an offer to manufacture mining vehicles under licence agreement. The enterprise currently employs over 30 persons, and manufactures 10 different models of underground vehicles. The small size of the operation allows for considerable design flexibility within each production model, dependent upon the specific operating requirements of individual customers. Engines, transmissions, axles and braking systems supplied by Caterpillar represent approximately 25 per cent of the value of each manufactured vehicle. Vehicles manufactured in Burnie are supported by an extensive network of Caterpillar service agents throughout Australia. At present, over 60 per cent of vehicle sales are outside Tasmania.

### Regional Sales Franchises

One indigenous and three non-locally owned Tasmanian operations hold regional sales franchises for products manufactured by non-related companies outside the state. Products sold under franchise agreement include hardware, optical lenses and equipment, aluminium gutters and plastic pipe fittings (Table 4.11). The enterprises selling gutters and pipe fittings are Hobart branches of mainland companies. As well as manufacturing their own range of these products, each enterprise has acquired the retail franchise for competing goods produced on the mainland which would otherwise be sold via wholesalers or direct sales agents in Tasmania. By adopting a strategy of selling the competition's products under franchise, rather than competing against them openly, the Hobart manufacturers are able to guard against mainland firms dumping their surplus production in Tasmania at prices below profitable market levels. Sales of franchised goods account for approximately 10 per cent of total turnover within each of the two Tasmanian enterprises.

The enterprises holding sales franchises for hardware and optical lenses are each reliant upon these arrangements for over one-quarter of their annual turnover. One of Tasmania's largest indigenous sawmilling companies operates two large timber and hardware retail outlets in the Hobart area. These outlets are operated as sales franchises for the national hardware group 'Mitre-10'. As a Mitre-10 franchise the Tasmanian

enterprise benefits from an established national purchasing and advertising network, and is guaranteed sole trading rights of Mitre-10 products within the Hobart metropolitan area. Also based in Hobart, a non-locally owned manufacturer of optical lenses holds a wholesaling franchise for all Bausch & Lomb and Namco products sold to retailers and optometrists in Tasmania.

#### Enterprises Acting as Franchisors to Other Firms

Of the 166 enterprises included in the study, only four act as franchisors to non-related companies. One non-locally owned and two indigenous enterprises have franchised a portion of their operation to firms within Tasmania. The non-locally owned enterprise, a manufacturer of building products located in Hobart, has nominated 10 hardware stores throughout Tasmania as franchises able to undertake light fabrication of sheet metal materials provided to them. Under franchise agreement, the hardware stores fabricate items such as roofing, downspouts and fencing to the particular needs of their retail customers. By nominating hardware outlets as production franchises, the Hobart manufacturer has been able to increase its sales exposure in the home handyman market.

The two indigenous enterprises acting as franchisors to other firms in Tasmania are a Launceston manufacturer of shopfronts and a Hobart enterprise manufacturing bread and pastry products. The Launceston manufacturer has engaged a glass replacement firm in the north west region as a service franchise, while the Hobart enterprise has granted two retail franchises to managers operating small hot bread shops in the Hobart area.

The only Tasmanian enterprise to hold the position as franchisor to a firm located outside the state is The Cascade Brewery Company. Following the takeover of Cascade by Industrial Equity Ltd in 1985, an Adelaide firm was granted a production licence for a number of Cascade's fruit juice products. The decision to commence franchise operations on the mainland was part of a more general strategy by Industrial Equity Ltd to increase the volume of sales generated by Cascade in markets outside the state. In its first year of operation, the franchise returned over \$100,000 in revenue to Cascade.

### Market Arrangements

In addition to specific sales or service territories guaranteed under formal franchise contracts, only six indigenous enterprises are engaged in other forms of market arrangements. They are the state's three largest print media groups and the three largest plant bakeries. The print media groups include Davies Brothers Ltd in Hobart, ENT Ltd in Launceston, and Harris & Co Ltd in Burnie. Each group publishes a daily newspaper, focusing its Tasmanian content upon the particular region in which the paper is based. Although each paper operates sales offices in all three state regions, the volume of both advertising revenue and newspaper circulation outside its home region is negligible. For over 100 years, these media groups have held an informal agreement dividing the state into three separate markets. In order to retain the stability of the three market system, the papers have maintained very similar formats. For instance, in 1984 when Davies Brothers took the decision to drop its Saturday evening paper in favour of a new Sunday edition, both ENT and Harris & Co took immediate steps to alter their weekend format as well. In order to minimise the reporting staff required outside their home regions, the three papers also share their news service resources within Tasmania. Information concerning routine news items such as court proceedings, council meetings, and police and fire services is gathered within each region by the local paper and distributed to the other two news organisations. In addition to the newspapers, each media group has expanded into commercial printing within its home region. Despite their strong local market positions, none of the groups has yet to challenge the other organisations by expanding into other regions of the state. Instead, Davies Brothers' printing division Mercury Walch Pty Ltd has expanded its operations overseas (see sections 4.2.1 and 6.2.3).

A second informal market arrangement is held between Tasmania's three largest plant bakeries. They are Bass Bakery in Burnie, Nu-Bake Bakery in Launceston, and Cripps Bakery in Hobart. Since the mid-1970s, these three enterprises have dominated Tasmania's fresh bread and pastry market. While the bakeries in Burnie and Launceston have always been Tasmanian owned, Cripps was acquired in the early 1970s by the Victorian-based dairy products group Consolidated Foods Ltd. In 1977, Consolidated

Foods was subsequently taken over by another Victorian firm J. Gadsden Pty Ltd. In 1982, Gadsden sold off a number of its non-dairy operating segments in Victoria and Tasmania, including Cripps. The Hobart bakery was purchased for \$1 million by a consortium of Tasmanian businessmen, headed by the managing directors of Nu-Bake in Launceston and the Hobart-based flour miller Gibson's Ltd. The consortium hired the acting operations manager of Bass Bakery as Cripps' new managing director.

While the perishable nature of bakery products discourages the plant bakeries from distributing products outside their base region, the common shareholding and management linkages between them has virtually guaranteed that none of the operations will undertake investment outside their own region as a challenge to the other regional plant bakeries. However, a new entrant in the bakery products market, Wilson's Huon Bakery, represents a potential challenge to the established three market system. Located 45 kilometres south of Hobart, Wilson's began producing fresh bread for the southern market in 1975. By 1983, the company had established a distribution centre in Hobart, and captured 40 per cent of Cripps' southern bread market. In 1985, Wilson's began selling products outside the southern region when it commenced production of both fruit and meat pies for sale in Coles-Myer and Woolworths supermarkets around Tasmania.

#### **4.3.3 Summary**

The examination of existing subcontract, franchise, licence and market arrangements, suggests that the nature of inter-organisational power relationships within Tasmania's manufacturing sector differs markedly from those defined empirically elsewhere. In particular, the operations of most small and medium-sized enterprises are not influenced by operating linkages established with larger firms. Given that Tasmania's larger manufacturing enterprises are predominantly engaged in the semi-processing of resource-based materials, and the state's smaller firms are predominantly manufacturing non-resource based goods for the state market (see section 3.4), relatively few opportunities exist for the development of operational linkages between enterprises within the two groups. Few small enterprises possess the specialist skills required by larger

organisations, and most large firms utilise only standard production technologies which are unlikely to be externalised to small firms.

Although nearly one-third of all Tasmanian manufacturing enterprises are engaged in subcontract relations, only a handful of firms are dependent upon these arrangements for more than a small percentage of their operating revenue. Although studies including Clarke (1979) and Mason (1984) have suggested that the majority of small manufacturing firms are dependent upon subcontract relations, these studies are largely concerned with processes taking place within large metropolitan areas. Only recently have studies such as McGloughlin (1985) and Taylor (1986) examined the nature and implications of subcontract relations in rural and less developed economies. McGloughlin's study of linkages between small and large firms in non-metropolitan Victoria concluded that subcontract linkages were not an important form of power relations between the two groups of enterprises. In Taylor's study of enterprises in Fiji, he demonstrates that subcontract linkages are important in terms of power relations between large and small firms. However, the processes underlying these power relations in Fiji, the significant differences in wage structures between large and small firms, are very much different from the processes influencing power relations within Tasmania's manufacturing sector.

Evidence from the Tasmanian study clearly demonstrates that most subcontract relations are informal arrangements between enterprises of similar size within the state. In fact, the largest number of subcontract relationships within Tasmanian manufacturing are between small or medium-sized firms. Many of these enterprises, particularly within the durable goods sector, utilise subcontractors only on an occasional basis in order to meet the production deadlines of individual product orders. Formal subcontract relations organised on a permanent basis are largely within areas of packaging, and the manufacture of generic consumer products for Tasmania's two largest grocery retailers. Although the manufacture of generic products has been an area of growth for a number of small indigenous firms, the majority of permanent subcontract relationships involve only a small segment of each enterprise's overall operation. Moreover, none of the enterprises undertaking permanent subcontract work is linked to its subcontracting partners through

the provision of trade credit, finance, or working capital.

Each of the franchise relationships involving 23 Tasmanian enterprises is held with a company located outside the state. Of these 23 enterprises, the largest number (N=19) manufacture products under licence arrangement. Seven of these 19 operations are non-locally owned firms which manufacture licensed products under a national franchise agreement negotiated by their parent organisation on the mainland. Although one-half of all enterprises manufacturing licensed products are reliant upon these arrangements for more than 20 per cent of their annual turnover, licence arrangements provide a number of significant benefits to Tasmanian manufacturers. Most important is access to vital technical information and product support facilities developed by other firms. In addition, a number of indigenous firms manufacture products under licence which would otherwise be produced by competitors on the mainland and sold through sales agents in Tasmania. Franchise arrangements originating from manufacturers in Tasmania are virtually non-existent, as only four enterprises act as franchisors to non-related companies. Once again, this reflects the fact that most indigenous enterprises are small operations manufacturing products for a limited local market, and that most larger non-locally owned enterprises are engaged primarily in the semi-processing of resource-based materials.

The following chapter establishes the nature of enterprise differentiation within Tasmania's indigenous and non-locally owned manufacturing sectors. Segmentation within the non-locally owned sector is identified in terms of the operational role which local branch plants maintain within their parent organisation. Power relations between non-locally owned enterprises and their parent companies are also evaluated. The final portion of the chapter differentiates indigenous manufacturing enterprises on the basis of owner-managed and manager-operated organisations, as these groups present themselves as useful categories within which to evaluate growth strategies in Chapter 6.

## **CHAPTER 5**

### **DIFFERENTIATION AMONG NON-LOCALLY OWNED AND INDIGENOUS MANUFACTURING ENTERPRISES**

The objective of the present chapter is to establish the nature of enterprise differentiation within Tasmania's indigenous and non-locally owned manufacturing sectors. The main section of the chapter examines the character of the state's 85 non-locally owned firms, drawing upon the conceptualisation of enterprise segmentation discussed in Chapter 1 (Taylor and Thrift, 1981a, 1982a, 1984). Segmentation within the non-locally owned sector is identified in terms of the operational role which local branch plants maintain within their parent organisation. Power relations between non-locally owned Tasmanian enterprises and their parent companies are also evaluated, focusing upon the level of decision-making granted to local managers, and the dependence on the parent organisation for finance capital, business services, and material linkages. Changes in power structures between 1980 and 1985 are examined in light of the shifts of control functions between Tasmanian branches and their parent companies outside the state.

The final portion of the chapter differentiates indigenous manufacturing enterprises on the basis of owner-managed versus manager-operated organisations. The distinction between these two types of organisations provides a most useful conceptual basis from which the processes underlying change within indigenous capital will be evaluated in Chapter 6.

### **5.1 RELATIONS BETWEEN NON-LOCALLY OWNED MANUFACTURING ENTERPRISES AND THEIR PARENT COMPANIES LOCATED OUTSIDE TASMANIA**

The following sections examine the relationships between non-locally owned Tasmanian manufacturing enterprises and their parent companies located outside the state. Given that the majority (61 per cent) of the state's manufacturing workforce is employed by non-locally owned enterprises, an understanding of the intra-organisational relations which exist between operations in Tasmania and the mainland is crucial to an evaluation of



the processes underlying existing power networks, and the potential for growth within Tasmania's manufacturing sector.

Discussion centres upon two areas. First, the current pattern of enterprise segmentation within the state's non-locally owned manufacturing sector is identified, and each segment is evaluated in terms of the dominant organisational and operational relations between Tasmanian enterprises and operating segments of the parent company located outside the state. These relations are measured empirically, using both interview and secondary data. The categories used in the empirical analysis are informed by the theoretical relations developed in the segmentation literature (see section 1.7). Of particular concern are:

1. The locations of external head offices and ultimate holding companies to which the Tasmanian enterprises are responsible.
2. The nature of reporting structures linking Tasmanian enterprises to operations of the parent organisation outside the state.
3. The concentration of ownership within the state's non-locally owned manufacturing sector.
4. The differences in products manufactured and market strategies followed by Tasmanian as against mainland branches of the parent organisation.
5. The visibility of Tasmanian enterprises within the overall parent organisation. Visibility is defined in terms of total employment, capitalisation, sales volume, and profitability of the Tasmanian operation relative to other branches of the parent company outside the state.

In defining these organisational and operational relations between Tasmanian enterprises and their externally-based parent organisations, important conclusions are drawn concerning the stability of Tasmanian enterprises, both as operating segments within multi-locational business organisations and as employers within a regional labour market.

Following the evaluation of dominant organisational and operational structures within the segmented manufacturing economy, the specific processes underlying power relations between Tasmanian enterprises and their parent companies located outside the state are detailed using survey data. The power which senior managers within Tasmanian possess is seen as largely related to the degree of control which they are allowed to retain over the means of production, the process of accumulation, and local labour processes.

The conceptualisation of branch plants is thus in terms of the geographically absent functions of economic ownership and possession (Massey, 1984, p. 104). From this conceptualisation, power relations within the segmented economy are examined empirically at the enterprise level. Specific relationships examined include the level of decision-making granted to Tasmanian enterprises, the transfer of job functions between Tasmanian and mainland branches of externally-based parent companies since 1980, and the dependence upon segments of the parent companies located outside Tasmania for finance capital, business services, and material linkages.

#### **5.1.1 Organisational and Operational Relations Within the Segmented Corporate Structure**

As suggested in Chapter 1, both theoretical and empirical research on enterprise segmentation to date has focused largely upon corporate structures at the national rather than regional or local levels. As a result, leader, intermediate, laggard and support segments within large business organisations have been predominantly addressed in terms of autonomous corporate divisions, within which a number of sub-operating units are organised. For example, Taylor and Thrift's (1984) study of Australian manufacturing defines segmentation on the basis of ABS data which, as its basic unit of analysis, includes 'all the operations in Australia of a single operating legal entity' (ABS, 1983). Thus, business segments identified by Taylor and Thrift (1984) make no distinction between semi-autonomous operations within multi-site organisations. For the current study, however, emphasis is placed upon the individual operating unit (eg. 'branch plant' defined as a non-locally owned Tasmanian enterprise) and the decisions affecting it. The identification of segmentation within Tasmania must, therefore, be presented in terms of the processes which are relevant to these operating units. In particular, evidence from the Tasmanian research suggests strongly that the notion of segmentation, focusing upon individual operating units, is best analysed separately for those enterprises which operate as part of single-division, multi-divisional, and global parent organisations.

The division of large business organisations into these three dominant types extends Taylor and Thrift's conceptualisation which focuses solely upon segments within multi-

divisional and globally integrated organisations (see Figure 1.4). Single-division organisations, generally producing within one product group, typically comprise a number of separate enterprises each directly responsible to the group's head office. Variations between enterprises are predominantly limited to the product types which each plant manufactures, the levels of capital intensity and technologies used in the production process, and the characteristics of the markets each enterprise is serving. For example, as part of a single-division organisation manufacturing plastic packaging materials, a Melbourne branch plant is likely to manufacture a wider product range, using more recent technologies, than is an associated branch located in Hobart. Multi-divisional organisations are generally engaged in a wider range of activities, with enterprises in separate divisions manufacturing within different product groups. The competition for capital funds within such organisations is often more complex, as both divisions and enterprises within them must bid for a share of the parent company's operating resources. Segments within globally integrated corporations are defined as business enterprises engaged either wholly or partly in the semi-processing of materials which are then transferred to other segments of the parent company outside Australia for further manufacture. Global corporations may be single-division operations, although in fact virtually all are engaged in a wide range of activities structured within a divisional hierarchy.

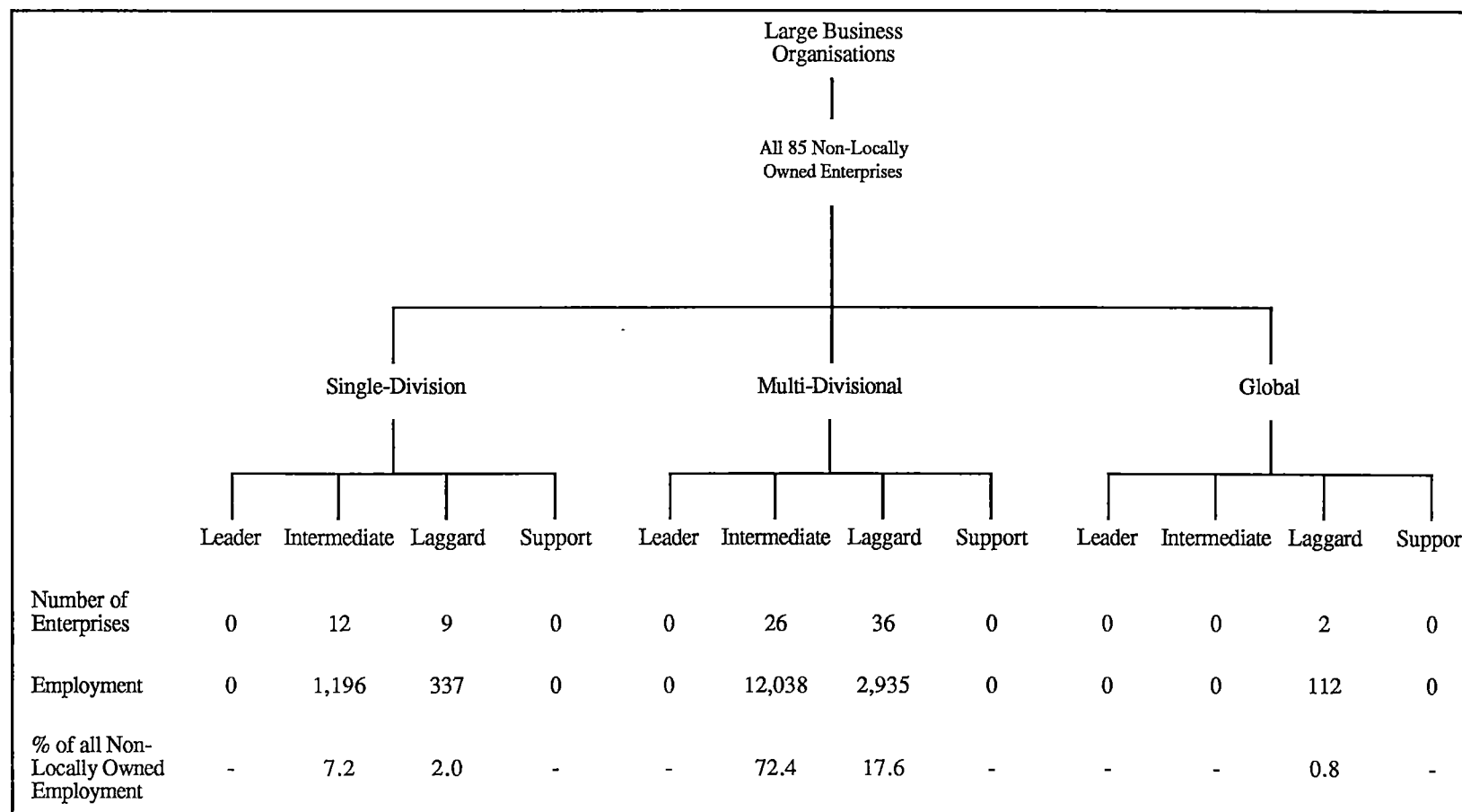
From the perspective of the branch enterprise, the distinction between single-division, multi-divisional, and global parent organisations is clearly important in the Tasmanian context. As the lowest unit in the parent organisation's structural hierarchy, branch plants are potentially the least powerful entities within the group. The stability of each branch plant within the parent organisation is largely related to its centrality in terms of the corporation's overall market and growth strategy. Within single-division operations, separate enterprises are each required to follow a similar strategy, focusing upon the production of goods within a single product group. Within multi-divisional and global organisations, however, the strategies adopted by branch plants are guided by those of the operating division to which they belong. The processes leading to changes within

branch establishments of multi-divisional organisations are thus likely to be quite different from those influencing operational units of single-division companies, as multi-divisional segments and the enterprises within them are engaged in a number of separate activities, some of which may no longer be of importance to the long-term development objectives of the organisation as a whole.

Analysis of the survey data classifies 21 per cent of the 85 non-locally owned enterprises as segments of single-division parent organisations, 62 per cent as segments of multi-divisional organisations, and only two as segments of global corporations (Figure 5.1). One of the most important features of the classification is that there are no leader or support segments of externally-based organisations within Tasmania. In particular, the lack of leader segments demonstrates that no Tasmanian branch plants are actively involved in developing products or markets which are central to the long-term growth of the parent organisation. Moreover, the absence of these segments has reduced the opportunities for employment in high level management and technical positions within the state. In fact, 55 per cent (N=47) of non-locally owned enterprises within Tasmania are laggard segments, either manufacturing products which are nearly obsolete or selling within markets which offer only minimal opportunity for profits. However, the 38 intermediate segments, manufacturing products and serving markets which return more stable profits, account for nearly 80 per cent of the state's non-locally owned manufacturing workforce.

The following sections outline the specific character of intermediate and laggard segments operating as part of single-division, multi-divisional, and global parent organisations. Data from both the survey of local managers and secondary sources are used in assigning each enterprise to a particular segment. The assignment process itself is based upon the differentiation of Tasmanian enterprises from other branches of the parent organisation located outside the state. Six characteristics are considered to be of primary importance in assigning each enterprise. They include the level of technology applied in local manufacturing operations, the degree of corporate visibility and product independence maintained by the enterprise, and levels of capitalisation, turnover, and

Figure 5.1: The Pattern of Segmentation Among Tasmania's 85 Non-Locally Owned Manufacturing Enterprises, 1985



Source: Author's classification.

profits which are maintained in relation to other branches of the parent firm. The dominant enterprise characteristics of each segment, summarised in Table 5.1, are discussed below. Throughout the discussion, reference is made to Figure 5A.1, placed at the end of the chapter, which details the reporting structures under which individual Tasmanian enterprises are operating. Information concerning products manufactured, the locations of Tasmanian and external head offices, and segmentation is also provided in Figure 5A.1 for each of the 85 non-locally owned enterprises. The data in Figure 5A.1 was compiled from interviews held with local managers, as well as information and annual reports supplied by their parent companies.

#### Enterprises Operating as Part of a Single-Division Parent Organisation

The 21 segments belonging to single-division parent organisations employ 9.2 per cent of the workforce within the state's non-locally owned manufacturing sector (Figure 5.1). The largest number of enterprises (N=12) are intermediate segments, eight of which manufacture resource-based products for markets outside Tasmania (Table 5.1). One is engaged in filtered-down processing, also for markets outside Tasmania, and the final three enterprises pursue a strategy of Tasmanian market entry. Senior managers of all 12 intermediate enterprises are directly responsible to group management located at the parent organisation's ultimate head office, four of which are located overseas (Figure 5A.1, cases 9-12). Of the nine intermediate segments largely dependent upon export markets, five (Figure 5A.1, cases 5, 7, 10, 11 & 12) are the only manufacturing operations of their parent company within Australia, and a further three manufacture products not made at other locations within the parent company. Thus, only one manufactures goods produced elsewhere within the group, and there is virtually no competition between Tasmanian and mainland branches of these parent organisations for the sale of products within mainland markets.

The three intermediate segments pursuing a strategy of Tasmanian market entry are the Launceston bottler of Coca-Cola soft drinks, a clay brick manufacturer near Launceston, and an enterprise located in Hobart manufacturing steel building products.

**Table 5.1: The Nature of Segmentation Among Tasmania's 85 Non-Locally Owned Manufacturing Enterprises, 1985**

Segment		Dominant Enterprise Characteristics						
	Enterprises	Market Strategy	Capitalisation	Sales Volume	Profits	Product Independence	Corporate Visibility	Process Technology
<b>Single Division</b>								
Intermediate	12	Resource-export	Medium/High	Low/Medium	Steady	High	High	Standard
Laggard	9	Tasmanian Market	Low	Low	Low	Low	High	Standard
<b>Multi-Divisional</b>								
Intermediate	26	Filtered-down Resource-export	High	High	Steady	High	High	Standard
Laggard	36	Tasmanian Market	Low	Low/Medium	Low	Low	Low	Aging/Standard
<b>Global</b>								
Laggard	2	Resource-export	Low	Low	Steady	Low	Low	Standard

Source: Tasmanian Manufacturing Survey, 1986

Although each of these operations belongs to a parent company having similar plants located in several mainland states, the Tasmanian enterprise has captured a significant share of the state market, and generates steady profits for the organisation. Moreover, the three plants each represent a major share of both group employment and capitalisation within Australia as the operations of their parent companies comprise a small number of operating establishments.

The remaining nine enterprises of single-division parent organisations are classified as laggard production segments (Figure 5A.1, cases 13-21). In contrast to most intermediate segments, these nine operations generally represent only a small part of total group employment, output and capitalisation, and they manufacture products within markets offering only minimal levels of profit (Table 5.1). However, the visibility of each of these segments within its parent organisation is high, as products produced locally are similar to those manufactured elsewhere within the parent firm and each Tasmanian manager reports directly, as an independent production unit, to the group head office. Six of the nine laggard segments manufacture products which are marketed only within Tasmania (Figure 5A.1, cases 13, 15, 16, 17, 20 & 21). Of these, four firms manufacture consumable goods including breakfast cereal, malt, industrial starches and paper towels, while the two remaining firms manufacture durable products such as aluminium ducting and window frames. Each of these operations belongs to privately owned mainland-based companies which have located virtually identical operations within several states under a strategy of local market capture. The Tasmanian operations are therefore tied to the limited and slow growing state market. Moreover, plants within Tasmania typically manufacture a narrower range of product types, as the small size of the local market prohibits the duplication of certain (often capital intensive) processes undertaken in plants in larger markets such as Melbourne and Sydney. As a result, four of the six laggard segments are also involved in distributing products in Tasmania which are manufactured by mainland branches of the parent company.

The three laggard segments involved in export manufacture consist of a company producing lightweight fabrics, and two firms engaged in timber processing. Located in



Launceston, the fabric manufacturer is dependent upon mainland product markets which have been subject to considerable import penetration since the late 1970s. In 1982, plans to close the mill by the operation's UK-based parent company led to a subsequent buy-out organised by a major Australian customer and four local managers in Tasmania. As a result of the buy-out, the Tasmanian mill was reduced from a semi-autonomous subsidiary company to a minor player within an Australian-based three plant integrated production operation. At present, all its products are transferred as semi-manufactured components to the other branches of the parent company located in Victoria. The two timber companies are both small operations located north west of Launceston. In both cases, sales of timber to major markets in Victoria have declined as the level of available timber resources has fallen. Both mills are largely dependent upon timber resource from private land, as concessions of state forests utilised in APPM's pulpwood operations have limited the availability of timber resources to smaller sawmills in northern Tasmania.

#### Enterprises Operating as Part of Multi-Divisional Parent Organisations

The largest number of non-locally owned manufacturing enterprises belong to multi-divisional parent organisations (Figure 5A.1, cases 22-83). Altogether, a total of 36 externally-based multi-divisional organisations account for 73 per cent (N=62) of all enterprises and 90 per cent of employment within the state's non-locally owned manufacturing sector (Figure 5.1). Although most enterprises are branches of parent companies based within Australia, 21 are owned by organisations with ultimate head offices located overseas (Figure 5A.1, cases 50-70).

Of these 62 Tasmanian enterprises, 26 have been classified as intermediate and 36 as laggard operating segments. Employing nearly one-half of the state's entire factory workforce, the 26 intermediate segments are predominantly engaged in the manufacture of either filtered-down or resource-based goods for markets outside Tasmania. Included among these are the state's four largest enterprises, EZ Industries, APPM (paper and forest products divisions), ANM, and Comalco. Most export-oriented operations are characterised by high levels of capitalisation and product output, while generating steady

profits for their parent organisation (Table 5.1). The majority of exporting operations also manufacture products which are not produced elsewhere within the group in Australia.

A minority of the Tasmanian intermediate segments (N=9) of these multi-divisional organisations manufacture either durable or consumable goods with strategies of Tasmanian market entry (Figure 5A.1, cases 30, 31, 57, 60, 64, 75, 78, 81 & 82). Unlike the export-oriented operations, most of these enterprises belong to parent companies which have similar operations located within several mainland states. Although few of the products manufactured are unique to the Tasmanian enterprise, these nine segments are each valuable operations to their parent company as they control strong market positions within the state. Only two of the nine segments, a manufacturer of advertising signs and a heavy engineering firm, compete against indigenous enterprises within the Tasmanian market.

In total, 30 of the 36 laggard segments pursue a strategy of Tasmanian market entry. Most of these segments are small in terms of both the parent company's total capital assets and employment within Australia, and operate within Tasmanian product markets which are at best static (Table 5.1). Such markets include packaging (Figure 5A.1, cases 27, 28, 38, 39, 48 & 79), non-metallic minerals (cases 22, 35, & 80), and building products (cases 33, 34, 36, 41, 42, 49, 74 & 76). Like the nine laggard segments of single-division parent companies, the majority of these segments belong to Australian parent operations which have similar plants located within each state. This strategy of establishing similar production facilities within each state means that most of these Tasmanian plants are wholly dependent upon sales within the limited state market. Moreover, the range of products manufactured and technologies used within Tasmania are generally limited in relation to other mainland branches of the parent company. In fact, managers of 12 of the 36 laggard segments stated during the interviews that a portion (if not all) of their production machinery was second-hand equipment obtained from mainland branches of the parent company which had updated their processing systems.

The six laggard segments which manufacture products for export markets include four companies engaged in the processing of resource-based materials, and two involved

in filtered-down manufacturing. Tasmanian managers of three of the resource-based companies reported that their local operation is declining due to a limited availability of natural resources. The fourth enterprise, a manufacturer of steel alloys, is dependent upon its parent organisation for virtually all product sales (Figure 5A.1, case 45). The two filtered-down segments are Repco's bearing operation in Launceston, and a Hobart-based subsidiary of BHP Ltd manufacturing steel nails and wire products. The BHP subsidiary is the smallest of three Australian plants within a division contributing only 0.06 per cent to BHP's consolidated net profit during 1985 (BHP Ltd, Annual Report, 1985). Between 1980 and 1985, Repco Corporation Ltd diverted the majority of its investment in new equipment away from its automotive component divisions, as the company pursued a strategy of growth in a number of areas outside of manufacturing. A more detailed summary of changes which have taken place within Repco since the interview with senior executives in 1985 is provided later in the chapter.

An important difference between laggard segments within single and multi-divisional companies is the degree of corporate visibility each maintains within its parent organisation (Table 5.1). Within single-division organisations, individual branch enterprises are generally more visible given that each is closely linked to a central corporate strategy, and report directly to the group head office. The fate of any one branch is likely to be associated primarily with its sales performance, as few other factors tend to differentiate plants within the group. Within multi-divisional organisations, however, the visibility of each enterprise is influenced by the range of activities undertaken by various divisions, and the complexity of reporting structures under which enterprises are required to operate. For example, within Tasmania, one-third (N=10) of all laggard segments (Figure 5A.1, cases 34, 36, 39, 41, 42, 46, 50, 67, 74 & 76) and one intermediate segment (case 75) are functionally a small part of their parent company's Victorian sales division. Tasmanian managers report directly to a regional office in Melbourne, which then amalgamates financial information for its plants in Victoria and Tasmania. Information forwarded from the Victorian division to the group's head office is largely based upon the combined information for plants within the two states.

In addition to profits generated from production activities, the process of accumulation within large multi-divisional organisations typically revolves around both the acquisition of other companies and the rationalisation or disposal of existing assets which have become peripheral to the organisation's core strategies. The sale of autonomous divisions is particularly attractive to large business organisations as an alternative to the debt-financing of new investments. In terms of individual branch plants and their local labour markets, however, the sale of entire divisional segments is potentially disastrous as decisions are focused primarily upon the performance and direction of the division as a whole, rather than on the profitability of individual plants, and the quality of local management. The implications for adjustment within the local labour market are seldom a concern of group managers based outside the region.

#### The Local Implications of Corporate Disinvestment - Two Tasmanian Case Studies

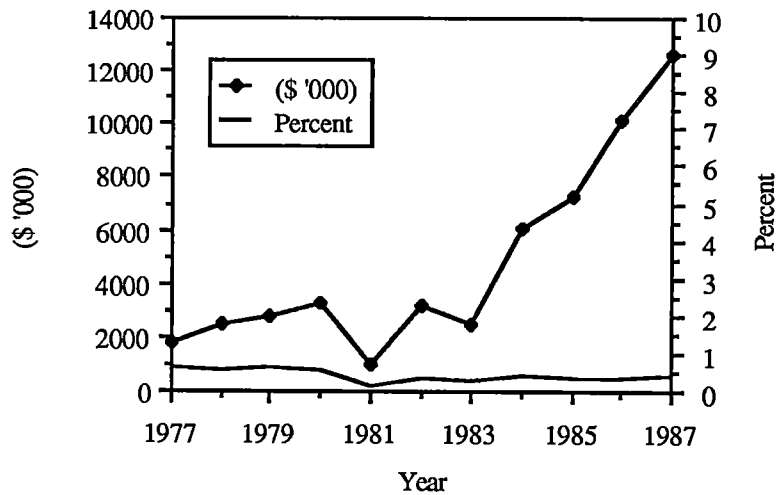
In the period since the thesis interviews were completed in 1985, several non-locally owned Tasmanian enterprises have been involved in divisional sales organised by their multi-divisional parent organisation. Two of these enterprises, Rheem Australia Ltd and Repco Powder & Metallurgy, provide useful examples of two very different corporate strategies under which operating divisions have been targeted for disinvestment.

##### Rheem Australia Ltd

Since 1938, BHP Ltd has held a majority shareholding in Rheem, a Sydney-based company manufacturing steel containers and water heaters. Since the early 1970s, Rheem has diversified out of its traditional steel products base, into areas such as plastics and paper packaging, soft drinks, and woven industrial fabrics. As Rheem diversified and expanded its production operations, profits grew slowly until 1984 when the company made its most recent major acquisition, Vulcan Australia Ltd, a market leader in heating equipment, chef appliances, and dishwashers. Since 1984, Rheem has performed well, although its contribution to BHP's net profits has remained below 1 per cent (Figure 5.2). By 1985, Rheem had established six major production divisions, employing more than

5,500 persons at its 51 establishments throughout Australia and New Zealand (Rheem Australia Ltd, 1986).

**Figure 5.2: Rheem Australia Ltd - Contribution to BHP's Consolidated Net Profit, 1977-1987**



Source: BHP Annual Reports, 1977-1987

Rheem's Launceston operation, one of the smallest production facilities in the group employing only 26 persons, manufactures steel drums for BHP's ferro alloy plant at Bell Bay, and also distributes throughout Tasmania a limited range of products manufactured by other branches of Rheem on the mainland.

While Rheem was diversifying its activities in the 1970s and early 1980s, BHP's growth strategy centred upon the acquisition of capital outside its steel division. In particular, investment was strongest within areas of mineral exploration and development, where the returns to capital were perceived to be most favourable. During 1986, Perth-based Bell Resources Ltd increased substantially its shareholding in BHP, and attempted three unsuccessful takeover bids. At the beginning of 1987, Bell Resources and a second major Australian company, Elders IXL Ltd, held a combined shareholding of just under 50 percent of BHP's total issued capital. During that year, the chief executives of Bell Resources and Elders joined the board of BHP, and entered into an agreement whereby their combined shareholding was not to exceed 50 per cent without first proposing a cash offer for all shares in the company.

By the beginning of 1988, both BHP management and their investment advisors concluded that BHP's most sensible investment strategy was to gain control of the shares purchased by Bell Resources and Elders (Business Review Weekly, 29 January 1988, p. 20). The shares held by Bell Resources were particularly critical, as the Perth company suffered heavy losses in the wake of the October 1987 stock market crash. At the time, speculation in the media suggested that if BHP had not taken the decision to buy back its shares, Bell Resources would possibly have been forced to sell them at a loss on the open market (Australian Financial Review, 6 January 1988, p. 11). In late January, BHP announced that it would buy back 300,000 shares held by Bell Resources, for a total price of \$2.7 billion. The purchase reduced Bell Resources' holdings from 30 to 10 per cent, effectively reducing the total number of BHP shares on issue by 20 per cent.

In order to fund its share purchase, BHP announced that it would sell off between \$1 2 billion of its 'non-strategic' assets. The disinvestment of these assets was necessary in order for BHP to minimise its level of debt financing. The most likely candidates for sale included Rheem (valued at \$400 million), BHP's steel distribution operation Tubemakers Ltd (valued at \$180 million), and several equity investments including BHP's \$86 million worth of preference shares held in Elders, and \$30 million shareholding in Bell Resources. In early February, BHP announced that Rheem would be the first major asset sold. A statement issued by BHP's chief executive indicated that while Rheem was a highly profitable operation, it had diversified away from BHP's core interests. Within a few weeks of BHP's announcement two companies, Email Ltd and SA Brewing Holdings Ltd, presented takeover offers. Email, a major whitegoods manufacturer, was primarily interested in Rheem's Vulcan division while SA Brewing Holdings' major interest was in Rheem's soft drink operations in north Queensland. In late March, SA Brewing Holdings gained full control of BHP's controlling interest in Rheem, bidding \$438 million.

The decision to sell Rheem was clearly made on the basis that its operation was peripheral to the BHP organisation, yet profitable enough to attract buyer interest. Rheem's senior executives and plant managers played no part in the decision, and one can only speculate as to their future role in the organisation. Given that SA Brewing Holdings

Ltd was successful in gaining control of Rheem, there is a high probability that investment will concentrate on only one segment (eg. soft drink manufacture and distribution), and that the remaining divisions will be either closed, or split up and sold to other enterprises. In terms of the buyers and sellers, a wide range of options is certainly available. The ultimate fate of the 51 establishments, their managers and 5,000 other employees within the Rheem organisation is far from clear.

#### Repco Corporation Ltd

In sharp contrast to Rheem's subordinate role in its parent company's decision to divest its operations, the local management and employees of Repco's engine parts division emerged as key players in their parent company's disinvestment program, by successfully organising a management buy-out. At the time of the thesis interview in 1985, Repco's Launceston plants operated within the engine parts division of the parent company's manufacturing group. During 1985, this division represented a major component of Repco's Australian and New Zealand operations, accounting for nearly one-third of gross sales and trading assets, and employing 41 per cent (6,922 persons) of the parent company's workforce (Table 5.2). In 1985, the Launceston operation employed 450 persons, only 6 per cent of the workforce within Repco's engine parts division.

Since the early 1980s, Repco's corporate strategy has focused predominantly upon investment outside of its automotive componentry divisions, as a number of factors, both locally and overseas, have generated uncertainties regarding the future of automobile manufacturing within Australia. In 1985, Repco entered into a reciprocal share purchase agreement with the Brisbane-based Ariadne Australia Ltd, involving 19 per cent of each company's issued capital. In February 1986, Ariadne successfully bid for the remainder of Repco's shares, amounting to \$345 million. After the takeover, Ariadne accelerated the disinvestment of Repco's manufacturing segments. In early April 1986, Repco New Zealand was sold for \$70 million to the New Zealand conglomerate Renouf Corporation. Later that month, Ariadne sold Repco's brake and clutch divisions for \$34 million to the Yorkshire-based automotive and engineering products company BBA Group PLC.

**Table 5.2: Repco Corporation Ltd, Contribution of Operating Segments, 1985**

Operating Group	Gross Sales		Trading Assets		Employees	
	(\$ million)	%	(\$ million)	%	Number	%
Distribution & International	531	39.2	277	41.9	4,457	26.3
Manufacturing <sup>1</sup>	436	32.2	215	32.5	6,922	40.9
Repco Retailing	178	13.1	56	8.4	2,487	14.7
Repco New Zealand	154	11.3	81	12.2	2,313	14.7
Repco Hire	55	4.2	32	5.0	728	4.5
Total	1,354	100.0	661	100.0	16,907	100.0

Source: Repco Corporation Ltd, Annual Report, 1985

<sup>1</sup> Within Repco's manufacturing division, sales of engine components accounted for \$312 million (23%) of gross sales.



With the future of Repco's engine parts division looking increasingly uncertain, the head of the division (a Launceston manager), along with eight other senior executives from other branches, submitted a buy-out proposal to Ariadne's board. The proposal included five plants employing a total of 1,180 persons, 41 per cent of which were employed in Launceston. Ariadne was clearly in favour of the buy-out proposal since it represented a means of selling the division which would be acceptable to both itself and Repco employees. By late May, the buy-out was finalised for \$35 million. The newly formed company, Automotive Components Ltd (ACL), was financed by Repco's management buy-out team and various other sources including the Australian Industry Development Corporation (AIDC), Citicorp, and Repco's employees (Table 5.3).

**Table 5.3: Shareholders in Automotive Components Ltd Following Its Creation in 1986**

Equity Participant	Share Interest (Percent)
Management Buy-Out Group	40.0
AIDC	20.0
Citicorp Ltd	14.9
Business Loans & Equity Capital Investments Pty Ltd	14.3
ACL Employee Participation Trust	10.0
Wardley Australia Nominees Ltd	0.7
Total	100.0

Source: ACL Bearings, 1987

ACL management had little difficulty in obtaining the external finance necessary to complete the buy-out, as each plant included in the proposal operates within established markets (particularly for replacement parts) and maintains a strong cash flow. Management buy-outs, well established overseas, are a relatively new occurrence within Australia, but already many financial institutions have geared segments of their operations to deal specifically with the financing of buy-out arrangements (*The Australian*, 21 July 1987, p. 13). In the first 12 months following the buy-out, ACL's turnover of \$77

million exceeded the company's budgeted estimate by 10 per cent. Although the long-term position of ACL within Australian and overseas automotive markets is uncertain, the buy-out has provided a strong financial base and streamlined management structure from which the company's operations can expand. A very important aspect of the buy-out, from a Tasmanian perspective, is that the Launceston production facility has become much more central to the operations of its mainland-based parent company.

After the management buy-out of Repco's engine parts division, Ariadne continued its rationalisation of Repco's remaining manufacturing divisions, retaining only the production facilities required to supply Repco's automotive retail and service segments. In the six months following the stock market crash of October 1987, Ariadne recorded the largest half-yearly loss (\$536 million) in Australian corporate history (The Australian Financial Review, 24 March 1988, p. 14). The heavy losses incurred by Ariadne led to the speculation that the company would sell off Repco. In early March 1988, a group of 12 Repco executives, including the managing director, issued a media statement indicating the group had finalised a \$275 million buy-out arrangement with Ariadne for the remaining divisions of Repco (Business Review Weekly, 11 March 1988, p. 24). The following day, Ariadne's chief executive both denied any knowledge of the buy-out proposal, and dismissed Repco's two most senior executives. Quite clearly, the buy-out proposal offered to Ariadne lacked the most important prerequisite of a successful management buy-out, the support of the existing owner.

The processes by which Rheem and Repco's engine parts division were disinvested by their parent company were clearly very different, and highlight the dynamics of strategies adopted by multi-divisional business organisations in periods of restructuring. An underlying theme within both case studies, however, is that the segments targeted for disinvestment had become increasingly peripheral to the central strategies being followed by their parent organisation. From the perspective of both parent firms, the sale of these assets was simply a part of the ongoing accumulation process.

### Concentration of Corporate Ownership

Given that the acquisition and disinvestment of companies forms an integral part of the accumulation process within most multi-divisional firms, it is important to monitor the concentration of corporate ownership within small and industrially specialised regions such as Tasmania. Tasmania's 85 non-locally owned manufacturing enterprises are ultimately owned by 58 separate parent companies. Of these 58 companies, only 12 multi-divisional organisations operate more than one enterprise within the state (Figure 5A.1, cases 22-60). Together, the 12 account for 47 per cent (N=39) of all non-locally owned enterprises and 59 per cent of non-local employment in Tasmania. Most of the 39 Tasmanian enterprises account for only a small percentage of their parent company's turnover and employment within Australia. In fact, only two parent companies, North Broken Hill Holdings Ltd and Cadbury-Schweppes Australia Ltd, have more than 10 per cent of their Australian workforce based in Tasmania (Table 5.4).

In total, 26 of the 39 Tasmanian enterprises are laggard operating segments of their externally-based parent company. The largest number of these (N=23) are enterprises manufacturing either durable or consumable goods for the Tasmanian market. Typical of these enterprises are the five laggard segments owned by the Sydney-based transnational James Hardie Industries Ltd (Figure 5A.1, cases 36-40). With the exception of Montpelier Foundry (case 37), each enterprise operates within a division in which similar plants are located in each state. In relation to the associated mainland plants, each Tasmanian operation is small in terms of employment, sales and output, while operating in markets which are either stable or declining. In 1985, Montpelier Foundry was the last remaining foundry operation within the steel pipe segment of James Hardie's Building Products Division. Four similar operations on the mainland were closed between 1980 and 1985 as James Hardie's strategy was to rationalise the division and divert the capital into more profitable areas. Two years after the thesis survey, Montpelier Foundry was also closed, retrenching a total of 81 persons. At the time of its closure, Montpelier was trading profitably within the local market. A few months following its closure, the foundry was purchased by a small indigenous foundry which required additional space for

**Table 5.4: Multi-Divisional Parent Organisations Having Multiple Holdings Within Tasmania, 1985**

Australian Parent Organisation	Location of Ultimate Holding Company	Number of Tasmanian Enterprises		Tasmanian Employment	% of Group Employment in Australia
		Intermediate Segments	Laggard Segments		
North Broken Hill Holdings Ltd	Melbourne	3	-	4,563	55.8
The Adelaide Steamship Co	Adelaide	4	3	1,242	3.5
Industrial Equity Ltd	New Zealand	1	1	1,053	6.3
Cadbury Schweppes Australia Ltd	United Kingdom	2	-	752	10.6
The Broken Hill Proprietary Co Ltd	Melbourne	-	5	497	0.8
Pacific Dunlop	Melbourne	1	3	486	1.9
James Hardie Industries Ltd	Sydney	-	5	343	0.7
Humes Ltd	Melbourne	-	2	213	3.0
ACI International	Melbourne	1	2	204	1.4
Boral Ltd	Sydney	-	2	154	1.5
Johns Perry Ltd	Melbourne	1	1	97	1.1
Amcor Ltd	Melbourne	-	2	29	0.2
<b>Total</b>		<b>13</b>	<b>26</b>	<b>7,828</b>	<b>7.2</b> (mean)

Source: Tasmanian Manufacturing Survey, 1986

its production activities. Many of Montpelier's former employees were subsequently hired back by the indigenous employer.

In addition to the 23 enterprises manufacturing goods for the Tasmanian market, three laggard segments (cases 45, 54 & 59) are resource-based companies dependent upon export markets. The major operations of two of these enterprises, Forest Resources and Safcol (Tas) Pty Ltd, are constrained largely by the availability of resource materials. The majority of timber used in Forest Resources' woodchip operations comes from private land. Although the company's woodchip production remained steady at approximately 910,000 tpa between 1980 and 1985, its future appears unstable as it was unsuccessful in a 1985 bid to gain a share of resources within Tasmania's Southern Forest Concession. In fact, Tasmania's entire woodchip industry is likely to decline as a result of the competition for Tasmanian resources which would take place if a pulp mill proposed by APPM for northern Tasmania is established. Safcol's fish processing and canning operations are under threat due to a decline in the stocks of established fisheries in waters surrounding Tasmania. Although Safcol has taken steps to diversify its Tasmanian activities (see Chapter 6), its present operation remains largely dependent upon the availability of fisheries resources.

The 13 intermediate segments belonging to parent organisations having multiple Tasmanian holdings comprise seven large resource-based companies (Figure 5A.1, cases 24-26, 51-53, & 55), four enterprises selling primarily within the Tasmanian market (cases 30-31, 57 & 60), and two large filtered-down operations (cases 44 & 48). Employing 5,615 persons, the seven large resource-based enterprises are owned by only two parent organisations, North Broken Hill Holdings, Ltd (NBH) and The Adelaide Steamship Company (Adsteam). Together NBH's Tasmanian operations account for over 68 per cent of its Australian workforce, and a major share of group's sales volume. In particular, APPM's paper operations have provided moderate but steady profits since 1980. Although EZ Industries has suffered a number of trading losses (\$3.9 million during 1985) in recent years, NBH is clearly committed to the company as massive investment programs have been announced which will increase the output of the Risdon

smelter by 50 per cent, and significantly lower the unit labour cost per tonne of zinc produced (The Mercury, 18 May 1987, p. 1).

The intermediate resource-based segments owned by Adsteam comprise three large vegetable processing plants in north and north west Tasmania, and a timber processing operation in Launceston. Although these operations account for only a minor percentage of Adsteam's total employment and turnover within Australia, each operation is central to the division in which it operates, in terms of turnover, profits, and employment. For example, within Adsteam's subsidiary Petersville Sleigh Ltd, the Edgell Birds-Eye division incorporates five mainland and one New Zealand plant in addition to the three in Tasmania. Together, the nine plants control approximately 90 per cent of the frozen vegetable market within Australia (Sargent, 1985, p. 271). The three Tasmanian plants account for a large share of Australian production and sales, particularly for frozen pea and potato products.

The four intermediate segments operating under a strategy of Tasmanian market entry are a Launceston heavy engineering enterprise owned by Johns Perry Ltd, a Hobart glass bottle manufacturer operating within ACI International's Packaging Division, the New Zealand owned Cascade Brewery Company Ltd, and Cadbury-Schweppes' soft drink plant in Hobart. With the exception of the soft drink plant these enterprises are large by Tasmanian standards as each employs over 100 persons and has assets totalling more than \$4 million. All four of the enterprises hold a strong position within the statewide market, operating in product segments in which their parent companies would find it difficult to service the local market from manufacturing operations based outside the state. The two large filtered-down operations, both located near Hobart, are the Pacific Dunlop subsidiary Sheridan Textiles, and Cadbury-Schweppes' confectionery operation. Both of these plants employ over 400 persons, and sell their products primarily within mainland markets. Since the interviews were completed in 1985, Pacific Dunlop has sold the Sheridan facility. The details of this are discussed later in the chapter.

### Enterprises Operating as Part of Global Production Systems

Only two of the state's 85 non-locally owned manufacturing enterprises belong to global organisations in which products manufactured within Tasmania are transferred, as semi-processed materials, to branches of the parent company outside Australia for further manufacture (Figure 5A.1, cases 84 & 85). Both enterprises, Extal Pty Ltd and Glaxo Australia Pty Ltd, are laggard segments engaged in the harvesting and processing of poppies used in pharmaceutical manufacture. In relation to their global parent organisations, both Tasmanian enterprises are small, peripheral operations supplying only a minor quantity of materials for pharmaceutical production. Tasmania, the only Australian state in which poppies are grown, developed its poppy industry during the early 1970s. Glaxo's operation at Latrobe, near Devonport, centres upon the harvesting of poppies, the separation of poppy seeds from their capsules, and the extraction of poppy oil. Poppy straw is then sent either to Glaxo's Australian head office in Victoria or to a Scottish-based Glaxo PLC subsidiary for pharmaceutical manufacture. During 1985, approximately 25 per cent of all straw exported by Glaxo from Tasmania went directly to plants of the parent company located outside Australia. Glaxo's facility at Latrobe employs only 30 persons, 6 per cent of the parent company's Australian workforce of 480 persons. By comparison, Glaxo PLC employs approximately 32,000 persons worldwide. In 1985, Glaxo's Australian sales of pharmaceuticals and semi-processed materials totalled \$66 million, accounting for less than 3 per cent of the world turnover within Glaxo PLC's pharmaceutical division.

Extal Pty Ltd, also located in the north west region, is owned by the US-based Johnson & Johnson Company. Reporting directly to the parent company's pharmaceutical division in Clifton, New Jersey, the Tasmanian plant is one of 238 enterprises operated by Johnson & Johnson in 61 separate countries. Unlike Glaxo, Extal manufactures opiates and semi-synthetic derivatives of opium alkaloids at its plant in Tasmania. Approximately 20 per cent of sales are of raw codeine transferred to overseas manufacturing facilities of McNeil Pharmaceutical, a US-based subsidiary of Johnson & Johnson. The remaining 80 per cent of sales are largely to other overseas manufacturers.

The peripheral position held by the Tasmanian branches of Glaxo and Extal within their parent company's global operations is increased by both the strict international production and marketing controls set by the International Narcotics Control Board (INCB), and the import restrictions on pharmaceutical chemicals set by various countries. In 1979, a global surplus of poppies led the INCB to reduce the production levels of Australian manufacturers. Within one year, the total area of poppies grown under contract to the two companies in Tasmania was reduced from 8,747 to 1,531ha (Wood, 1987, p. 164). The world market has since stabilised, and the total area of crops grown under contract in Tasmania has risen again to approximately 5,000ha annually. However, countries such as the United States and Britain limit the amount of manufactured and semi-processed chemicals which are imported each year. In the US, for example, only 20 per cent of the nation's requirements for codeine can be met by foreign producers, including overseas subsidiaries of American companies.

### Summary

The first portion of this chapter has summarised the current pattern of segmentation among Tasmania's 85 non-locally owned manufacturing enterprises, using both survey and secondary data. A number of conclusions can be drawn from the evidence provided. First, the lack of any leader or support segments within Tasmania suggests that none of the non-locally owned enterprises operating within the state is engaged in activities which are vital to the long-term growth of the parent organisation. Second, the largest number of non-locally owned Tasmanian enterprises are laggard segments manufacturing products for sale within the limited state market. Third, most intermediate segments are large enterprises manufacturing either resource-based or filtered-down products for export markets. Associated with the lack of leader segments, in particular, is a low number of high level managerial positions which are available within the local region. The majority of enterprises pursuing a strategy of Tasmanian market entry are run by a single local manager who oversees virtually all activities undertaken by the enterprise within the state. Most managerial tasks within intermediate segments which manufacture products for



export markets are associated with the day-to-day production operations.

Most of the 47 laggard segments within Tasmania account for only a minor portion of the parent firm's commitment to capital and employment within Australia. These segments typically generate low volumes of both turnover and profit, and manufacture a more limited range of products compared to similar operations of the parent company on the mainland. Laggard segments operating as part of single-division organisations typically maintain a high degree of visibility within the parent firm which manufactures predominantly within a single product group. However, over three-quarters of all laggard segments in Tasmania operate as part of multi-divisional organisations within which Tasmanian operations have only a low level of visibility.

The majority of intermediate segments represent a higher percentage of the parent firm's commitment to capital resources within Australia. The resource-based or filtered-down products manufactured by these segments typically generate steady levels of profit for the organisation, although the mainland and overseas markets in which they operate are often highly competitive. While generally more secure within the state from an intra-organisational perspective, the long-term viability of many intermediate segments is tied to the availability of local raw materials, especially timber resources.

The following sections examine the processes underlying power relations between Tasmanian enterprises and offices of their parent companies located outside the state.

#### **5.1.2 Power Relations Between Tasmanian Enterprises and Their Parent Companies Outside the State**

In evaluating the nature of power networks between Tasmanian enterprises and their parent organisations located outside the state, it is crucial that relations are analysed in terms of categories useful for understanding the actual processes at work. Empirical evidence is based upon the conceptualisation offered by Massey (1984), which emphasises that processes underlying power relations within firms are a function of the ways in which the social relations of capitalist production are organised over space. Specifically, the degree of power which branch managers possess is largely related to their control over the

relations of economic ownership and possession of capital . Figure 5.3 depicts a possible relationship between headquarters and branch locations within multi-locational firms. In this example, head office management holds the majority of power within the organisation, as it maintains full control over the processes of overall investment and accumulation. Head office management also holds full control over both the means of production and labour power. In contrast, managers of branch locations are likely to maintain only partial or minimal control over the relations of economic ownership, participating in only a small number of decisions regarding investment, the overall production process, and labour relations. An important aspect to this conceptualisation is that the relations of economic ownership and possession are variable both between enterprises and over time.

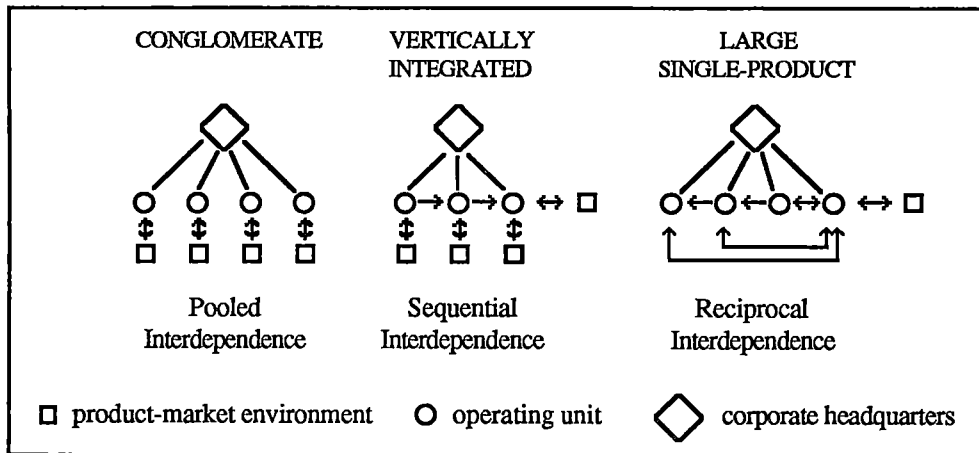
By focusing upon the presence or absence of control functions within the overall process of capital accumulation, empirical research is able to identify the relevant issues and processes underlying such concepts as 'branch plants' and 'external control' which, when treated in isolation, are open to a wide range of interpretations. For example, Erickson (1980) develops a model of organisational interdependence within multi-locational firms, suggesting that the degree of control maintained by head offices over branch plants is influenced primarily by the organisational structure of their parent company. In particular, Erickson considers three general structures, including conglomerate, vertically-integrated, and large single product organisations (Figure 5.4). The degree of head office control over branch plants is suggested to be lowest within organisations having conglomerate structures and highest within large single-product firms in which strong operational linkages are maintained between manufacturing establishments. Although the outcomes described by Erickson may hold true in the majority of cases, it is not the physical structure of organisations which determines control, but rather the presence or absence of the functions of economic ownership and possession. Without making this crucial distinction, it may be (incorrectly) assumed, for instance, that all conglomerate organisations behave the same in terms of the degree of control maintained over branch plants.

**Figure 5.3: Hypothesised Relations of Ownership and Possession Within Multi-Locational Business Organisations**

Degree of Control Over:		
Relations of economic ownership	Relations of possession	
	control of means of production	control of labour power
<b>Headquarters</b>		
<p><b>FULL</b> ie. control over the overall investment and accumulation process and</p> <p><b>PARTIAL</b> participation in decisions concerning either sub-units of the total production process or partial aspects of the entire production process</p>	<p><b>FULL</b> ie. control over entire apparatus of production</p>	<p><b>FULL</b> ie. control over the entire supervisory hierarchy</p>
<b>Branch</b>		
<p><b>PARTIAL</b> participation in decisions concerning a sub-unit of the total production process or</p> <p><b>MINIMAL</b> participation in decisions concerning narrow aspects of sub-units of production</p>	<p><b>PARTIAL</b> control over one segment of the total production process</p>	<p><b>PARTIAL</b> control over one segment of the supervisory hierarchy</p>

Source: Massey, 1984, p. 72.

**Figure 5.4: Organisational Structures Within Multi-locational Firms**



Source: Erickson (1980), p. 494.

The following paragraphs examine the current structure of power relations between Tasmania's 85 non-locally owned manufacturing enterprises and their parent companies located outside the state. Empirical evidence centres upon the level of decision-making granted to senior managers in Tasmania, the dependency upon the parent organisation for finance capital, business services and material linkages, and transfer of control functions between Tasmanian enterprises and branches of the parent company located outside the state. It is concluded that the majority of Tasmanian enterprises lack the functions necessary to maintain control over the relations of economic ownership and possession. At best, most Tasmanian managers are granted control over only a small portion of the overall processes of production, accumulation, and labour relations within the state. The bulk of strategic decisions regarding Tasmanian operations are undertaken by senior managers at either the divisional or group level outside the local enterprise. In addition, only a handful of Tasmanian managers have some degree of control over the financial capital necessary to maintain local operations. While the majority of power within virtually all organisations is controlled by senior executives located outside Tasmania, there is certainly some degree of variability between enterprises within the functional hierarchy. Discussion highlights these differences in terms of the segmented structure described in the first part of the chapter, and the strategies being followed by different organisations within

Tasmania.

### Decision-Making Granted to Tasmanian Enterprises

During the interviews, senior managers of each non-locally owned enterprise were asked to identify the locations at which various decisions regarding the Tasmanian operation are normally made. For 14 separate decisions, respondents indicated whether each is made by management of the Tasmanian enterprise, an office of the parent company located outside Tasmania, or jointly between local and external managers. Of the 14 decisions, five involve production activities, four concern areas of marketing, and five relate to matters associated with labour relations (Tables 5.5 & 5.6). Within production, decisions relating to product design, the sourcing of material inputs, and production levels are considered as most important in determining the degree of control ultimately maintained by local managers. In marketing, major emphasis is given to decisions regarding pricing policy, the location of product sales, and the method by which manufactured goods are sold (eg. wholesalers, retailers, etc.) are most critical. The critical decisions concerning labour relations are the authority over executive recruitment, and decisions regarding the total number of persons employed in Tasmania.

In total, Tasmanian managers make just over one-half of all decisions independently of their external head office. A further 16 per cent of all decisions are made jointly between managers in Tasmania and the parent company outside the state, while 26 per cent of all decisions concerning Tasmanian enterprises are made entirely by externally-based managers. At a general level, the conclusions relating to decision-making among Tasmanian enterprises support those which have been drawn from research undertaken elsewhere on branch plant autonomy (Tomkins and Lovering, 1973; Firm, 1975; Hood and Young, 1976; Watts, 1981). Higher autonomy is typically granted to larger operations, enterprises located greater distances from their reporting head offices, and enterprises which have a higher degree of product independence. In an earlier publication, Hood and Wilde (1986) show that Tasmanian enterprises reporting to offices in Victoria are granted complete autonomy for only 44 per cent of their decisions, compared to 51 per cent for

**Table 5.5: Decision Making Granted to Non-Locally Owned Laggard Operating Segments**

Decision	Office Where Decisions Regarding The Tasmanian Enterprise Are Made		
	Tasmanian Enterprise	Joint Decision Between Local and External Managers	External Head Office
<b>PRODUCTION</b>			
Product Design Enterprises			
No	12	5	30
%	25.5	10.7	63.8
Source of Inputs Enterprises			
No	28	4	15
%	59.5	8.7	31.8
Raw Stock Levels Enterprises			
No	30	10	7
%	63.8	21.1	15.1
Level of Production Enterprises			
No	39	3	5
%	82.8	6.5	10.7
Finished Stock Levels Enterprises			
No	29	10	8
%	61.7	21.1	17.2
<b>MARKETING</b>			
Pricing Policy Enterprises			
No	18	8	21
%	38.2	17.2	44.6
Advertising Placement Enterprises			
No	23	3	21
%	48.9	6.5	44.6
Location of Product Sales Enterprises			
No	20	4	23
%	42.5	8.6	48.9
Sales Method Enterprises			
No	23	9	15
%	48.9	19.3	31.8
<b>LABOUR RELATIONS</b>			
Executive Recruitment Enterprises			
No	10	9	28
%	21.2	19.3	59.5
Employment Level Enterprises			
No	29	14	4
%	61.7	29.7	8.6
Labour Dismissal Enterprises			
No	35	8	4
%	74.4	17.2	8.4
Labour Replacement Enterprises			
No	46	-	1
%	97.8	-	2.2
Recruitment of External Services Enterprises			
No	43	2	2
%	91.4	4.2	4.2
<b>ALL DECISIONS</b>			
Enterprises			
No	385	89	184
%	58.5	13.5	28.0

Source: Tasmanian Manufacturing Survey, 1986

**Table 5.6: Decision Making Granted to Non-Locally Owned Intermediate Operating Segments**

Decision	Office Where Decisions Regarding The Tasmanian Enterprise Are Made		
	Tasmanian Enterprise	Joint Decision Between Local and External Managers	External Head Office
<b>PRODUCTION</b>			
Product Design Enterprises			
No	9	12	17
%	23.7	31.5	44.7
Source of Inputs Enterprises			
No	23	12	3
%	60.5	31.5	8.0
Raw Stock Levels Enterprises			
No	19	18	1
%	49.9	47.3	2.8
Level of Production Enterprises			
No	19	14	5
%	49.9	36.8	13.3
Finished Stock Levels Enterprises			
No	20	11	7
%	52.6	28.9	18.5
<b>MARKETING</b>			
Pricing Policy Enterprises			
No	12	5	21
%	31.5	13.3	55.2
Advertising Placement Enterprises			
No	14	2	22
%	36.8	5.4	57.8
Location of Product Sales Enterprises			
No	16	2	20
%	42.0	5.4	52.6
Sales Method Enterprises			
No	14	7	17
%	36.8	18.5	44.7
<b>LABOUR RELATIONS</b>			
Executive Recruitment Enterprises			
No	16	9	13
%	42.1	23.7	34.2
Employment Level Enterprises			
No	30	8	-
%	78.9	21.1	-
Labour Dismissal Enterprises			
No	28	8	2
%	73.5	21.1	5.4
Labour Replacement Enterprises			
No	37	1	-
%	97.2	2.8	-
Recruitment of External Services Enterprises			
No	35	2	1
%	91.8	5.4	2.8
<b>ALL DECISIONS</b>			
Enterprises			
No	292	111	129
%	54.8	20.8	24.4

Source: Tasmanian Manufacturing Survey, 1986

enterprises reporting to offices in NSW, 66 per cent for enterprises reporting to offices in other Australian states and 88 per cent for enterprises reporting directly to overseas head offices. Such general conclusions are valuable in that they provide both an overview of local decision-making and present a basis for comparison with other studies. However, the variation in decision-making between enterprises is far more complex than these general conclusions would suggest. The following paragraphs summarise the processes underlying variations in decision-making between laggard and intermediate operating segments.

#### Production Related Decisions

Information was gained on five decisions related to production activities of the Tasmanian enterprise. They include product design, sourcing of material inputs, raw and finished stock levels, and the level of production. With the exception of product design, at least 50 per cent of both laggard and intermediate segments are involved to some degree in all production related decisions (Tables 5.5 & 5.6). A total of 63.8 per cent of laggard segments and 44.7 per cent of intermediate segments have no involvement in the critical area of product design. Given that most laggard segments operate under a strategy of Tasmanian market entry, their involvement in designing products is predominantly limited to the slight alteration of existing products, required to meet the particular needs of one-off product orders. Intermediate segments, largely oriented toward export markets, are predominantly involved in joint decisions regarding both the immediate requirements of mainland customers and long-term product developments of the Tasmanian operation. Tasmanian managers are more likely to be involved in long-term product developments if the local operation maintains a high degree of product independence within its parent organisation. In such cases, the expertise needed to develop and introduce new products is most likely to be held by managers and technical staff located in Tasmania. For example, in 1982 the Petersville Sleigh subsidiary, Tasmanian Board Mills Ltd, restructured its Launceston production operations by introducing wide board slab cutting of eucalypts. Given that Petersville Sleigh's forest products operations are located entirely



in Tasmania, local managers and production staff were very much involved in both the planning and physical development stages of the mill's restructuring (Ryder, 1985).

The majority of both laggard and intermediate segments are autonomous in decisions concerning raw and finished stock levels. However, enterprises which are dependent upon their parent organisations for either material supplies or as distribution/marketing agents are less autonomous in these areas. Not surprisingly, laggard segments are granted more control over decisions relating to production levels. Over 80 per cent of laggard segments set their own production levels without consulting their external head offices, compared with only 50 per cent of intermediate segments. Once again, most laggard segments are oriented toward the local market, and maintain a high degree of contact with their customers. Most intermediate segments sell their manufactured output to customers located outside the state, and base their production decisions upon consultation with mainland offices of the parent company. Even where it is not the policy of mainland companies to dictate Tasmanian production levels per se, many mainland offices act as sales agents for products manufactured in Tasmania. Local production decisions are thus determined by product orders placed outside the state.

### Marketing Decisions

The involvement of local management in the marketing of goods manufactured in Tasmania was assessed by asking senior managers where decisions concerning pricing policy, advertising placement, the location of product sales, and sales methods are normally made. The level of local control over product marketing is low for both laggard and intermediate segments (Tables 5.5 & 5.6). In over one-half of all intermediate segments, management located outside the state maintains full control over pricing, advertising, and the location of product sales. Most of these segments are engaged in resource-based or filtered-down processing, and manufacture products similar to mainland branches of their parent company. Higher levels of local control over marketing are maintained by managers of firms oriented toward the local market, and firms which maintain a high degree of product independence. Laggard segments possess greater

control over advertising placement and the sales methods used, because of their focus upon the local market. Nevertheless, fewer than one-half of all laggard operations are permitted to make these decisions without final approval from head office management.

### Labour Relations

Five decisions concerning relations between local management and labour were included in the manufacturing survey. They concern executive recruitment, the number of persons employed, labour dismissal and replacement, and the recruitment of external business services. In areas other than executive recruitment, the responses indicate that local managers of both laggard and intermediate segments are involved in the majority of labour-related decisions. However, the degree to which Tasmanian managers assume control over the labour process is highly variable. For example, while local managers make the majority of decisions relating to employment levels, labour dismissal and replacement, such decisions largely relate to the day-to-day running of the enterprise. Any decisions regarding significant changes in either the total number of persons employed or working conditions are made by managers based outside Tasmania. The majority of unions are organised nationally, and have little involvement with local management. Only 13 large non-locally owned enterprises employ either industrial relations or personnel managers in Tasmania.

Although local managers are primarily responsible for the recruitment of external business services in Tasmania, only a small number of enterprises actually use such services (see Table 5.7). Moreover, local service firms are used primarily for routine functions involving the general payroll and accounting requirements of the Tasmanian enterprise. These services are of relatively minor importance to the development of the local operation in comparison to other business services such as market research, R&D, and investment planning, which are usually organised by management outside Tasmania. The one decision for which major differences exist between laggard and intermediate segments is the recruitment of middle management. Most intermediate segments, generally larger than laggard operations, employ several managers within Tasmania. For these

segments, the hiring of managers under the level of chief executive is typically the responsibility of the Tasmanian operation. Many laggard segments employ only one manager who is responsible for all aspects of the Tasmanian operation. The chief executives of all laggard and intermediate branches are not surprisingly hired by persons located outside the state. Most often, chief executives in Tasmania are appointed from other positions within the parent firm on the mainland and have little knowledge of, or commitment to, the local area. Many remain in Tasmania for only a short time, as they are eventually transferred to other branches of the parent organisation.

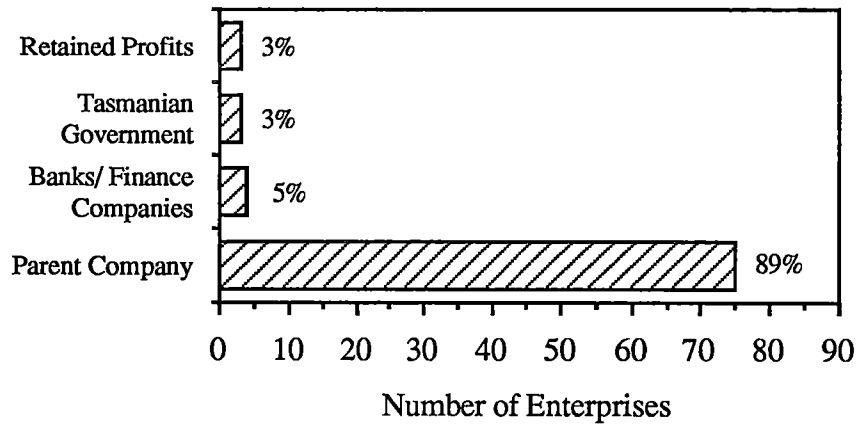
Dependence Upon the Parent Organisation for Finance Capital, Business Services, and Material Linkages

In addition to the decision-making functions held by local managers, power relations between Tasmanian enterprises and their parent companies outside the state are evaluated in terms of the dependency relationships involving finance capital, business services, and material linkages. Of these, finance capital is most critical in relation to the overall process of accumulation. Enterprises able to arrange their own investment finance possess much greater control over the relations of economic ownership within their organisation. The examination of business services provides valuable insight into both the range of service functions which are required by the Tasmanian enterprise, and the degree to which local managers are dependent upon mainland offices of their parent company for the supply of these functions. Finally, dependence upon the parent company for material or sales linkages also limits the range of control functions held by local management.

Finance Capital

As part of the manufacturing survey, senior executives in Tasmania were asked a number of questions regarding the financing of capital investments within the state between 1980 and 1985. Over the five year period, 89 per cent (N=75) of non-locally owned enterprises were largely dependent upon their parent companies for financing arrangements (Figure 5.5).

**Figure 5.5: Primary Source of Finance for Investments Undertaken by Non-Locally Owned Enterprises Between 1980-1985**



Source: Tasmanian Manufacturing Survey, 1986

In fact, managers of only three laggard and seven intermediate operating segments were granted authority to acquire finance for the majority of capital spending. The three laggard segments are the Johnson & Johnson subsidiary manufacturing pharmaceuticals, a small timber company in Launceston, and a branch of Pacific Dunlop producing mattresses. Of these, only the pharmaceutical manufacturer undertook major investments between 1980 and 1985, totalling over \$1.5 million. Financing for the majority of these investments was through retained profits of the Tasmanian operation. Together, the timber company and bedding manufacturer had a combined total investment of only \$180,000. Most of this investment was in replacement equipment, and was financed through loans from local trading banks and finance companies. The seven intermediate segments comprise four resource-based and two filtered-down enterprises oriented toward the mainland market, and a building products firm manufacturing for the local market. Three of the seven enterprises utilised state government loans for the majority of their financial requirements, two used local banks, and two relied primarily upon internal funds of the Tasmanian operation. In total, five of the seven segments invested more than \$1 million in capital equipment between 1980 and 1985.

Although managers of each of these 10 enterprises were granted control over obtaining finance, all proposals for investment by local management were presented to

senior executives of the parent firm outside the state for approval. In practice, most major investment proposals were initiated by the parent company. While local managers arranged the majority of their own finance, each of the Tasmanian enterprises relied upon its parent company as a secondary source of finance over the period. The four enterprises with the highest degree of financial independence belong to overseas-based parent organisations. These report directly to head offices outside Australia and operate as subsidiary companies. As a result, each is granted a high degree of autonomy in relation to local investment.

### Business Services

In order to assess the functional autonomy of local managers in satisfying the business service requirements of non-locally owned enterprises, respondents were asked to provide details on where various services are normally carried out for the Tasmanian operation. Information was gathered for seven services, comprising accounts payable and receivable, payroll, advertising, market research, research and development, and the preparation of taxation returns. For each enterprise, these services are classified as being carried out either internally by staff of the Tasmanian or mainland parent firm, or externally by an independent Tasmanian or mainland-based service organisation. In addition, details are recorded concerning the number of Tasmanian enterprises not using particular services such as advertising, market research, or R&D. For some enterprises, including those manufacturing intermediate-demand products for only a few customers, the nature of the local market does not encourage the use of specialist services such as advertising or market research. Within enterprises operating in final demand markets, however, the failure to utilise these service functions may reflect a weak competitive position within both the enterprise's parent organisation and the local economy.

Information obtained in the surveys indicates that Tasmania's 85 non-locally owned enterprises undertake only 37.4 per cent of their total business service requirements within the Tasmanian enterprise (Table 5.7). The largest percentage of services (46.3 per cent) are undertaken for local enterprises by offices of their parent companies located outside the

**Table 5.7: Location at Which Business Services are Undertaken for Non-Locally Owned Tasmanian Enterprises, 1985**

Business Service	Location at Which the Service is Undertaken				
	Tasmania <sup>1</sup> In-House	Tasmania <sup>1</sup> Other Firm	Mainland <sup>1</sup> In-House	Mainland <sup>1</sup> Other Firm	Do Not Use
<b>Accounts Receivable</b>					
Enterprises					
No	60	-	25	-	-
%	70.5	-	29.5	-	-
<b>Accounts Payable</b>					
Enterprises					
No	47	-	38	-	-
%	55.2	-	44.8	-	-
<b>Payroll</b>					
Enterprises					
No	31	37	16	1	-
%	36.4	43.5	18.8	0.3	-
<b>Advertising</b>					
Enterprises					
No	19	3	22	18	23
%	30.6	5.0	35.4	29.0	27.0
<b>Market Research</b>					
Enterprises					
No	14	3	36	9	23
%	22.5	5.0	58.0	14.5	27.0
<b>Research &amp; Development</b>					
Enterprises					
No	14	-	41	5	25
%	23.3	-	68.3	8.4	29.5
<b>Taxation <sup>2</sup></b>					
Enterprises					
No	11	4	65	5	-
%	12.9	4.9	76.4	5.8	-
<b>Total</b>					
Enterprises					
No	196	47	243	38	71
%	37.4	8.9	46.3	7.4	11.9

Source: Tasmanian Manufacturing Survey, 1986

<sup>1</sup> Percentages are based upon the total number of enterprises which utilise each service

<sup>2</sup> Based upon the preparation of tax returns for the Tasmanian enterprise, not the consolidation of returns for all Australian operations of the externally-based parent company.

state. Tasmanian enterprises utilise local service firms for less than 9 per cent of their service requirements, while external firms on the mainland account for 7.4 per cent of services undertaken. As demonstrated in Tables 5.5 & 5.6, the recruitment of external services is a function granted largely to local managers, particularly in regard to service firms located in Tasmania.

However, the usage of local service firms is limited almost entirely to the preparation of payroll accounts, with 43.5 per cent of all enterprises (N=37) using this service. Most of these 37 enterprises are medium to large sized operations which prefer to externalise the risks involved in handling large amounts of cash. Only three enterprises use local advertising and market research agencies, while four use local accountancy firms for a portion of their tax preparation. Of the three enterprises using local advertising agencies, only one, The Cascade Brewery Company, could be regarded as a major account. The other two manufacturers use local agencies on a part-time basis for only a small amount of print advertising. The use of both local market research and taxation accountancy firms is also on a part-time basis for each of the seven manufacturers involved. While the low usage of specialist service firms within Tasmania is primarily due to the absence of local control functions granted to local management, the range of local service firms is also extremely limited. In particular, advertising and market research agencies are concentrated in Hobart, a few small branches of these agencies are based in Launceston, and the north west region is virtually unserved. Managers of four non-locally owned enterprises in the north west have consequently chosen to use advertising and market research agencies in Melbourne, rather than using those based in Hobart or Launceston.

Local control over service functions is highest for routine activities including accounts receivable, accounts payable, and payroll (Table 5.7). Nonetheless, these routine accounting functions are undertaken by mainland offices of the parent company for at least 30 per cent of all Tasmanian enterprises. Local control is lowest for specialist functions which are often critical to the long-term development of the enterprise. These include advertising, market research, and R&D. Less than one-third of all non-locally owned enterprises employ personnel in each of these three areas. Evidence from the Tasmanian

study supports the work of Morphet (1987) which concludes that innovation in intermediate and laggard segments of large business organisations is predominantly oriented toward the reduction of costs within existing production technologies. Virtually all of these segments in Tasmania are following innovation strategies which present little or no risk to the local operation. Most research activity is linked either to meeting the specific product needs of individual customers, or to adopting new technologies developed elsewhere within the parent organisation. Only three of the 14 enterprises listed as undertaking R&D in Tasmania actually employ research staff on a full-time basis. These are EZ Industries, APPM, and Forest Resources.

Only 13 per cent of local managers maintain control over the preparation of income, payroll and sales tax returns for the Tasmanian enterprise. The separation of local management from both routine accounting and taxation functions suggests that many Tasmanian branch managers know very little about the profitability of their own operation, and do little more than manufacture products according to the specifications and quantities requested by head offices located outside the state. Comments made by a number of managers during the interviews support this conclusion. Within a number of export-oriented operations, in particular, the functional role of local management is limited to maintaining an efficient production system. In fact, nine non-locally owned firms are entirely reliant upon their parent companies for the provision of all routine accounting, payroll, and taxation services. They include six resource-based and three filtered-down operations of parent companies which have centralised all marketing functions on the mainland.

In terms of the degree of functional control maintained by local managers over business services, considerable differences exist between intermediate and laggard operating segments. Managers of intermediate segments have greater control over all services except advertising. Since most intermediate segments are oriented toward markets outside Tasmania, it is not surprising that a higher percentage of advertising is undertaken outside the state for these enterprises. Laggard segments are far more reliant upon their parent companies for routine service functions such as accounting and payroll. In



addition, intermediate segments are more likely to use external service firms in areas such as payroll, advertising, and market research. Most important, however, is that a much higher percentage of laggard segments do not use advertising, market research, or R&D services. In total, 27 per cent of laggard operations do not use advertising or market research, while 32 per cent have no access to R&D facilities. The limited use of specialist functions by laggard segments reflects both the lack of technological sophistication in production activities, and the constraints imposed by the local capitalist system in which they operate.

### Material Linkages

During each interview, information was obtained concerning the input and sales linkages of the Tasmanian enterprise. Respondents were asked what percentage (by value) of their material inputs are purchased from establishments of the parent company located outside Tasmania, the percentage of goods manufactured in Tasmania which are transferred to branches of the parent company prior to being sold, and the percentage of locally produced goods which are transferred to other branches as semi-processed materials requiring further manufacture. The degree to which non-locally owned enterprises are dependent upon their parent companies for these linkages is likely to influence the level of functional control held by local management. Most important is the presence or absence of marketing functions. Within enterprises transferring a high percentage of their manufactured output directly to other branches of the parent organisation, local managers are likely to have only minimal authority in areas outside local production activities. In addition, the viability of enterprises transferring semi-processed materials to other branches of the parent company for further manufacture is, in part, dependent upon the performance of other establishments over which local management has no control.

Results from the survey show that 42 per cent (N=16) of intermediate and 53 per cent (N=25) of laggard operating segments purchase a portion of their material inputs from branches of the parent company located outside Tasmania. The 25 laggard segments

purchase an average of 43.8 per cent of their materials from their parent company, compared to only 13.5 per cent among intermediate segments (Table 5.8). Laggard segments purchasing the highest percentage of inputs from their parent firm include those which are engaged primarily in the fabrication of semi-processed or finished materials for the Tasmanian market. In fact, six of these enterprises, manufacturing products such as packaging materials and building products, are dependent upon their parent firm for the supply of virtually all materials used in the manufacturing process. Typical of these six enterprises is Luxaflex Pty Ltd, a Hobart subsidiary of the Sydney-based domestic furnishings company Hunter Douglas. All inputs are purchased as finished materials from another branch of the parent company in Melbourne, and require only minor alterations to meet the needs of local product orders. Given that the Hobart plant is involved primarily in the light fabrication of finished materials, the control functions maintained by the local manager are minimal. In addition, the parent company has very little commitment to maintaining the Tasmanian operation, as it employs only a few persons and requires a minor amount of working capital to maintain production activities.

Of the 16 intermediate segments purchasing materials from other branches of their parent company, only four are dependent upon such arrangements for more than 20 per cent of their total material requirements. They include two textile & clothing firms in the north west region, as well as a building products manufacturer and the Cadbury chocolate operation located in Hobart. The textile & clothing and building products firms each purchase between 20 and 30 per cent of their materials from branches of the parent company located on the mainland. Of these, only the building products firm sells the majority of its manufactured product within the local market. Since 1984, Cadbury's plant at Claremont has obtained all of its processed cocoa materials from the parent company's centralised cocoa bean production facility located in Jurong, Singapore. The Singapore facility supplies all of Cadbury's cocoa requirements in the South Pacific, including confectionery plants in Malaysia, Australia, and New Zealand.

Of the non-locally owned enterprises which export manufactured products, 73 per cent of laggard and 46 per cent of intermediate segments transfer final products to branches

**Table 5.8: Dependencies Upon the Parent Company for Material Linkages, 1985**

Segment	Material Inputs Purchased From the Parent Firm			Manufactured Products Transferred to Other Branches of the Parent Firm as: <sup>1</sup>					
				Final Product for Distribution			Semi-processed Materials for Further Manufacture		
	Enterprises (N)	(%)	Materials Purchased (%)	Enterprises (N)	(%)	Value of Sales (%)	Enterprises (N)	(%)	Value of Sales (%)
Intermediate	16	42.1	13.5	12	46.1	46.8	9	34.6	17.8
Laggard	25	53.1	43.8	8	72.7	40.0	6	54.5	31.6
Total	41	48.2	32.0	20	54.0	44.3	15	37.8	25.0

Source: Tasmanian Manufacturing Survey, 1986

<sup>1</sup> Percentages based upon only those enterprises which export manufactured products outside of Tasmania.

of the parent company outside Tasmania for distribution (Table 5.8). These high percentages reflect both the lack of marketing control functions held by local managers, and a dependence on established marketing and distribution systems of the parent organisation. This is particularly the case for most laggard enterprises which, on average, control fewer key managerial functions including marketing. A higher percentage of laggard exporting operations also transfer semi-processed materials to mainland branches of the parent company for further manufacture. A total of nine intermediate and six laggard enterprises manufacture semi-processed materials including timber, food products, textiles, and chemicals as part of a multi-plant production system. The six laggard enterprises are much more dependent upon the transfer of semi-processed materials, as such transfers account for an average of 31.6 per cent of total turnover. Conversely, transfers represent an average of only 18 per cent of total turnover among the nine intermediate segments. In fact, only one intermediate operation, Comalco's aluminium smelter north of Launceston, transfers more than one-quarter of total output, as semi-processed material, to the parent company. Nearly 90 per cent of output from the Tasmanian smelter is manufactured into final products by branches within the parent company's rolled and extruded products divisions.

Transfers of Control Functions Between the Tasmanian Operation and Branches of the Parent Company Outside Tasmania, 1980-85

In order to assess the way in which power structures between Tasmanian enterprises and their parent companies outside the state have changed since 1980, respondents were asked a number of questions regarding shifts in functional responsibilities into or out of Tasmania between 1980 and 1985. The addition or loss of control functions over time ultimately determines both the level of power maintained by local managers, and the movement of enterprises between business segments. Most important to the examination of shifts in control functions are the types of functions (eg. marketing, finance, accounting, etc.) involved, the reasons behind the shifts taking place, and the implications of shifts in terms of their influence upon intra-organisational power relationships. Evidence from the survey demonstrates that shifts of control functions into and out of

Tasmania were roughly balanced over the five year period, resulting in little change to the overall pattern of power relations between non-locally owned enterprises and their parent companies located outside Tasmania. It is also concluded that most local managers have very little influence in decisions regarding shifts in functional control, particularly in cases where functions are transferred from the Tasmanian enterprise to mainland offices of the parent company.

#### Control Functions Transferred Out of Tasmania

Between 1980 and 1985, control functions within 23.5 per cent (N=20) of non-locally owned Tasmanian enterprises were shifted from the local operation to branches of the parent company located outside the state. Of these 20 enterprises, three senior executives within Tasmania identified more than one area in which functions were transferred outside the state. The following discussion therefore considers the loss of 23 separate control functions among the 20 enterprises. Over the five year period, control functions were lost within four primary areas, summarised in Table 5.9 as managerial, administrative, production and technical.

**Table 5.9: Control Functions Transferred From Tasmanian Enterprises to Mainland Branches of the Parent Company, 1980-85**

Number of Cases in Which Functions Were Transferred					
Segment	Managerial	Administrative	Production	Technical	Total
Intermediate	5	6	1	-	12
Laggard	3	5	2	1	11
Total	8	11	3	1	23

Source: Tasmanian Manufacturing Survey, 1986

A total of 12 functions were transferred from 10 intermediate segments, while 11 functions were transferred from 10 laggard segments. The largest number of functional shifts (N=11) occurred in administrative areas such as accounting and payroll, eight enterprises

lost managerial control functions, three lost control over a portion of their production activities, and the parent company of one enterprise transferred its Tasmanian design staff to Melbourne. The reasons for the loss of these control functions vary considerably among the enterprises involved. However, the loss of each function is associated with one of six general events summarised in Table 5.10.

The largest number of control functions (N=7) were transferred as part of a rationalisation strategy targeting either the Tasmanian enterprise or the operating division to which it belongs (Table 5.10A). Of these, five laggard segments, operating under a strategy of Tasmanian market entry, lost a portion of their functional autonomy as the range of local activities was reduced in response to poor trading conditions within the state market. Three of these enterprises, manufacturing steel office furniture, aluminium windows, and window furnishings, performed poorly against increased competition from small to medium sized indigenous firms. Pressure to reduce local costs within these firms resulted in one losing authority over both credit control and payroll, another losing its design staff, and the third actually losing a portion of its manufacturing operation to a Melbourne branch of the parent company. The other two laggard segments are a manufacturer of ready-mix cement, and a small company producing industrial and food gases. Although competition from indigenous operators was not a problem for these two firms, both experienced a decline in their respective markets, and eventually lost some control over accounting functions as their parent companies increased their direct involvement in the running of the Tasmanian operation.

Two of the seven enterprises lost control functions as their parent company rationalised the division to which they belong. They were Repco Bearings in Launceston, and Sheridan Textiles in Hobart. In 1982, Repco's parent company closed a mainland plant within the engine parts group, and centralised a number of functions for the five remaining plants in Melbourne. All market research activities undertaken from Launceston were transferred outside the state. Between 1975 and 1985, Sheridan's parent company, Pacific Dunlop Ltd, made a number of major changes to the group's domestic textiles division. In 1978, Sheridan's apparel and weaving operations were transferred to a

**Table 5.10: Events Leading to the Transfer of Control Functions out of Tasmania, 1980-85**

Segment	A Rationalisation of Either Tasmanian or Divisional Operations	B Installation of Computer Network Facilities Between Tasmania and the Mainland	C Restructuring Following Takeover of Parent Firm	D Centralisation of Group Administrative Facilities	E Centralisation of Group Production Facilities	F Expansion of the Tasmanian Operation
Intermediate	1	2	3	2	1	1
Laggard	6	2	-	1	1	-
Total	7	4	3	3	2	1

Source: Tasmanian Manufacturing Survey, 1986

branch in Melbourne, resulting in the loss of over 300 jobs in Hobart. Continued rationalisation of the textiles division during the early 1980s resulted in most of Sheridan's accounting functions being transferred outside the state. Less than 12 months after the interview with local management, Pacific Dunlop sold its entire domestic textiles division, comprising plants in Hobart and Melbourne, to a privately owned mainland company Bruck (Australia) Ltd. The sale of Sheridan's parent division was part of an overall strategy by Pacific Dunlop to sell-off several of its less profitable Australian holdings in order to raise capital for direct investment in manufacturing overseas, particularly in the US and New Zealand.

The second largest group of transfers (N=4) were attributable to the installation of computer network facilities between the Tasmanian operation and at least one mainland office of the parent company (Table 5.10B). The four Tasmanian enterprises include a small timber company in Launceston, a small firm manufacturing and wholesaling paper products in Hobart, Wander's Ovaltine production facility near Devonport, and a manufacturer of ice cream located in Launceston. In order to centralise a portion of group administration activities, accounting functions were transferred from each of these Tasmanian enterprises to mainland offices of the parent company following the establishment of computer network facilities. Three of the four enterprises lost control over virtually all accounting functions, including accounts payable & receivable, stock control, and payroll. In the case of the ice cream manufacturer, however, only a small portion of accounting activities (accounts receivable) was shifted from the Tasmanian enterprise.

Control functions were transferred from three intermediate operating segments following the takeover of their parent companies (Table 5.10C). They are a small chemical company in Launceston, and two textile & clothing manufacturers in Devonport. The chemical company, Tasbond Pty Ltd, began as an indigenous firm in 1971 manufacturing adhesives for concrete bonding. In the late 1970s the company was taken over by a privately owned company in Melbourne. During the building recession of the early 1980s, Tasbond diversified its product range to include products such as liquid organic fertilisers.



In 1983 Tasbond's parent company sold the Tasmanian operation to a the Melbourne chemical manufacturing group Redic Industries. Following the change in ownership, all of Tasbond's accounting and marketing were transferred to the Melbourne head office.

The two Devonport textile & clothing enterprises, Sterling Clothing and National Textiles Pty Ltd, were formed in 1983 when Tootal Australia closed its Devonport plant producing both fabrics and garments. Under Tootal, the combined fabric and garment operation was fairly autonomous in key areas of marketing and finance. Following Tootal's withdrawal, the garment section of the plant was purchased by Sterling's parent Entrad Corporation, while the fabric section was purchased by the Linter Group which owns National Textiles. After the plant was divided in 1983, both local manufacturing operations embarked upon major restructuring programs which included the transfer of control functions out of Tasmania. The marketing and finance operations of Sterling's garment section were transferred to Melbourne, while all sales and accounting for National Textiles were moved to Sydney offices of Linter.

Control functions were lost in a total of five enterprises as various activities within the parent organisation's Australian operations were centralised at a single location outside Tasmania. Three enterprises, including APPM's subsidiary Kilndried Timber Industries; a manufacturer of industrial chemicals; and a company producing advertising signs, lost a portion of their administrative functions through these centralisations (Table 5.10D). The two remaining enterprises, including Cadbury's confectionery plant and a Launceston mattress producer Dunlop Bedding, lost a portion of their manufacturing operations (Table 5.10E). As described earlier in the chapter, Cadbury's cocoa bean processing facility was shifted to Singapore where the parent company's group processing of cocoa is now centralised. In 1984, the division in which Dunlop Bedding operates centralised the production of mattress springs in Melbourne. Prior to the centralisation, Dunlop's six mattress plants throughout Australia each manufactured its own springs, relying upon older technology and shorter production runs. Although the new machine located in Melbourne is far more efficient on a per unit cost basis, Dunlop's chief executive within Tasmania indicated that production costs have actually risen in Launceston due to the

increase in freight charges on materials shipped from the mainland.

Of the 23 control functions transferred out of Tasmania between 1980 and 1985, only one was associated with the actual expansion of operations based in Tasmania (Table 5.10F). As part of the Cascade Brewery Company's move into mainland beer markets, a portion of its marketing activities was transferred to the mainland and placed under the direct control of the Sydney-based marketing department of Cascade's subsidiary company Four Seasons Ltd.

An important conclusion to be drawn from the preceding discussion is that virtually all of the functions transferred outside the state between 1980 and 1985 were in response to decisions made by senior executives based outside Tasmania. The majority of transfers were associated with either a more general reduction in local or divisional activities, the introduction of improved communications technologies at the group level, or the restructuring of production operations following the takeover of the Tasmanian enterprise's parent organisation. Local managers have little or no input into the policies initiated at the group level, and can only adjust to the forced reduction in control over Tasmanian operations. The final section of the chapter investigates the transfer of control functions into Tasmania between 1980 and 1985.

#### Control Functions Transferred Into Tasmania

Interviews undertaken with Tasmanian executives indicated that a total of 19 separate control functions were shifted from mainland branches of the parent company to 16 different non-locally owned enterprises within Tasmania between 1980 and 1985. Of the 19 control functions identified, five were in areas of management, seven were associated with administration and accounting, three involved the transfer of production activities, and four involved technical functions such as design and R&D (Table 5.11). In total, four separate events are largely responsible for the transfer of these 19 functions into Tasmania. They were the closure of mainland branches of the parent company, attempts to improve the productivity of the Tasmanian operation, physical expansion of the Tasmanian operation, and restructuring following the takeover of the parent firm (Table 5.12).

**Table 5.11: Control Functions Transferred From Mainland Branches of the Parent Company to Tasmanian Enterprises, 1980-1985**

Number of Cases in Which Functions Were Transferred					
Segment	Managerial	Administrative	Production	Technical	Total
Intermediate	3	5	1	3	12
Laggard	2	2	2	1	7
Total	5	7	3	4	19

Source: Tasmanian Manufacturing Survey, 1986

Control functions were shifted into four laggard and one intermediate segment following the closure of a mainland branch of the parent company (Table 5.12A). The local enterprises involved were the Johnson & Johnson subsidiary manufacturing pharmaceuticals, the Repco Bearing Company, Safcol's fish processing operation, and two small enterprises manufacturing paper bags and industrial chemicals respectively. The pharmaceutical manufacturer increased its Tasmanian production operations as a Sydney manufacturing plant was closed and all of Johnson & Johnson's codeine conversion facilities were centralised in Tasmania. After Repco's parent company closed a Melbourne plant producing engine parts, group R&D for the remaining plants within the engine parts division was moved to Launceston. As indicated in the previous section, however, the same closure also resulted in the Launceston plant losing its market research facilities. Safcol's Tasmanian operation was given ultimate control over the group's export market development when the parent company's Adelaide export sales office closed in 1982. Both the manufacturers of paper bags and industrial chemicals were granted greater autonomy in areas of accounting subsequent to the closure of plants in Melbourne and Adelaide.

A total of one laggard and four intermediate segments was granted additional control functions as part of the parent company's strategy to improve the productivity of the Tasmanian operation (Table 5.12B). Three of these segments operate under a strategy of

**Table 5.12: Events Leading to the Transfer of Control Functions Into Tasmania, 1980-85**

Segment	A Closure of Mainland Branch of the Parent Organisation	B Attempt to Improve the Productivity of the Tasmanian Operation	C Expansion of the Tasmanian Operation	D Restructuring Following Takeover of Parent Firm
Intermediate	1	4	3	1
Laggard	4	1	1	1
Total	5	5	4	2

Source: Tasmanian Manufacturing Survey, 1986

Tasmanian market entry, manufacturing products such as PVC piping, processed poultry, building products, and soft drinks. The fifth enterprise processes fish for both mainland and overseas markets. A wide range of functions was transferred to these enterprises, targeting the specific areas in which their operation was least efficient. Two of the five enterprises, the manufacturers of PVC products and soft drinks, were granted greater control in areas of accounting, as both the small size of their operation and the need to maintain close relations with local customers made it inefficient for mainland branches of the parent company to continue undertaking their accounting requirements. The parent company of the building products manufacturer transferred a full-time draughtsman to Tasmania, reducing the Tasmanian operation's dependence upon the parent company for drafting services, and increasing its responsiveness to the local market.

The manufacturer of poultry products introduced an in-house veterinary service to handle local stock problems more efficiently. Previously, the local enterprise had to rely upon veterinary services supplied from an associated company in Melbourne. The enterprise engaged in fish processing was granted more control over product marketing. The parent company's only other manufacturing facility outside the state, located in Perth, processes an entirely different product range from that of the Tasmanian operation. Prior to 1984, the Perth office marketed both prawns caught locally and scallops processed in Tasmania. Since then, however, the Tasmanian manager has been given control over the marketing of all products which are unique to the Tasmanian operation.

Of the 19 additional control functions granted to non-locally owned enterprises between 1980 and 1985, only four were associated with the physical expansion of Tasmanian enterprises (Table 5.12C). Two enterprises, a small plastics manufacturer and a large firm producing hand tools, introduced the manufacture of additional products previously produced elsewhere within the parent company. The plastics manufacturer commenced production of polystyrene packaging, establishing its independence from the parent company in the production and marketing of these products for the Tasmanian market. The manufacturer of hand tools increased its level of power within the parent organisation following a decision by the mainland board of directors to transfer the

production of screwdrivers from Sydney to Hobart. With the transfer of the production facility, the Hobart plant became the group's largest manufacturing unit within Australia, and the only one to utilise modern CAD/CAM technology. Expansion within a Devonport-based textiles enterprise led to its becoming more autonomous in areas of design, due to the introduction of new products (bath towels) which are produced only in Tasmania. Finally, following several major expansions to a timber company located in the north west region, its overseas parent company transferred the Australian head office from Melbourne to Tasmania. The Tasmanian manager was hired as the group's Australian managing director, with three mainland branches of the overseas company reporting directly to the Tasmanian office.

Following the takeover of their parent organisations, two Tasmanian enterprises were granted greater control over their local operation (Table 5.12D). The first, a cement and quarry products company located in Launceston, was purchased from the Readymix group of companies by Boral Ltd. After Boral purchased the local operation, a position of state manager was created in Launceston, replacing the much less autonomous senior position of operations manager which existed under the former parent. The second enterprise to gain additional control functions following a change in ownership is the McCain's green vegetable processing facility in Smithton. Under its former parent, General Jones Pty Ltd, all accounting and marketing for sales made within Tasmania were carried out at establishments on the mainland. After the facility was purchased by McCain's, the manager at Smithton was given control of these functions. During the interviews, local managers of both Boral and McCains indicated that the increase in functional autonomy simply reflected the different management philosophies of their previous and current parent companies.

A number of conclusions are drawn from the preceding discussion. First, the transfer of functional responsibilities into and out of Tasmania has done little to change the power networks which exist between non-locally owned enterprises and their parent companies located outside the state. The majority of transfers involve either routine control functions (eg. accounts payable and receivable) or only a small segment of more

critical functions such as marketing, production and finance. Second, the involvement of local management in decisions relating to changes in functional responsibilities is extremely limited. Third, from a methodological position, the empirical evaluation of functional shifts highlights the importance of adopting an intensive, corporate-specific approach to the study of power relationships within large business organisations.

Clearly, a diverse range of processes was responsible for the small number (N=42) of functional shifts identified in the manufacturing survey. Similar events such as the takeover of a parent company can quite easily result in very different outcomes for branch operations of two separate organisations. Even within one organisation, a single event can generate a number of different processes which ultimately influence the balance of functional control between the head office and branch enterprises. For example, restructuring subsequent to Repco Corporation's closure of a Melbourne manufacturing facility resulted both in responsibilities for market research being transferred out of the Launceston operation and in research facilities being transferred into the Tasmanian plant. Both the direction and magnitude of functional shifts between head offices and branch plants depend upon the corporate objectives, perceptions, and opportunities available to senior management of the parent company.

### Summary

In evaluating the power relations which exist between Tasmania's 85 non-locally owned manufacturing enterprises and their parent companies located outside the state, it is concluded that the majority of local managers are given minimal control over key functions involving production, labour, investment, and the accumulation of capital resources. The absence of these functions, at the local level, suggests that most non-locally owned enterprises hold a subordinate position within their parent organisation.

Local control in decision-making is limited primarily to routine functions involving production, and labour turnover. Key decisions in areas of product design, pricing policy, and executive recruitment, in particular, are either made jointly between local and external management, or by inter-state executives of the parent company. In general, laggard

segments are given more authority over decisions related to product marketing, attributable largely to their focus upon the local market. Intermediate segments, often relying upon the established marketing and distribution networks of their parent organisations, are less autonomous in these areas.

A high percentage of non-locally owned enterprises are also dependent upon their parent companies for their finance, business service, and to a lesser degree, material linkage requirements. Control over the financing of investments is especially critical in establishing the power networks between Tasmanian enterprises and their parent company. Nearly 90 per cent of manufacturing enterprises rely upon their parent company for the majority of investment finance. In addition, less than 40 per cent of business service requirements are undertaken in-house within Tasmania. Local control over service functions is lowest in key areas such as market research and R&D. Intermediate segments are somewhat more autonomous in carrying out their business service requirements, as they are typically larger than laggard segments, and employ more administrative staff locally. Usage of local business service firms is extremely low, and limited primarily to payroll requirements among both laggard and intermediate segments.

Power networks between Tasmanian enterprises and their parent companies outside the state have changed very little since 1980. Approximately 20 per cent of local enterprises either lost or gained a degree of control over the functions of economic ownership and possession between 1980 and 1985. The majority of functional shifts both into and out of Tasmania were in routine areas of accounting, with a fewer number of shifts involving managerial, production, and technical activities. The participation of local management in decisions relating to the transfer of control functions is typically minimal. In fact, the majority of events identified as leading to the transfer of functions were not even directly related to the performance of the local operation. The level of control functions held by managers in Tasmania is often the result of restructuring undertaken at the group level, following either the takeover of the parent firm, the closure of mainland establishments, or the centralisation of administrative and production activities.



The final section of the chapter examines the differentiation among Tasmania's 374 indigenous manufacturing enterprises. Enterprises are classified as either owner-managed or manager-operated, as this distinction is seen as critical to the evaluation of processes underlying change within the state's economy.

## **5.2 DIFFERENTIATION AMONG INDIGENOUS MANUFACTURING ENTERPRISES**

### **5.2.1 Theoretical Considerations**

In evaluating the factors which differentiate locally owned enterprises, consideration is given to the particular expression of indigenous capital within Tasmania's manufacturing sector. As demonstrated in Chapter 3, nearly three-quarters of all manufacturing enterprises within Tasmania are indigenous operations employing fewer than 50 persons (see Figure 3.14). Evidence from the survey indicates that all but a few of these firms are owned by either the original founder or one of his descendants. In fact, the majority of large indigenous enterprises are also owned privately by members or descendants of the founding family. Although the relation between indigenous capital and family ownership is certainly not unique to Tasmania (for example, see Johns *et al.*, 1983), the survival of most indigenous firms is clearly influenced by the goals and abilities of the few family members who own and perhaps manage the business.

While the physical link between indigenous capital and family ownership is well established, the relationship between family ownership and managerial control is much more complex. It is this relationship, however, which is seen as crucial to the understanding of indigenous enterprise within Tasmanian manufacturing. The following paragraphs examine the character of indigenous manufacturing operations, conceptualising enterprises in terms of owner-managed and manager-operated firms. Specifically, owner-managed enterprises are defined as operations in which a single owner (or family representative) also acts as chief executive of the firm, making virtually all routine and key operating decisions on his own behalf. Enterprises are classified as manager-operated if the majority of both routine and key decision-making functions are held by either an

appointed manager who is not a major shareholder in the company or by a management team, which may include the firm's majority owner.

Of central importance to most owner-managers is the retention of ultimate authority over all aspects of the enterprise. Both physical expansion and the division of managerial authority are likely to be perceived as a threat to the owner's control over the business. Within small owner-managed firms, in particular, the long-term survival of the business is often linked to problems associated with managerial succession. In cases where there is not a suitable second-generation family member to carry on as manager, the operation is often dissolved following the death or retirement of its founder. Owner-managers who do in fact wish to expand the scale of operations, without relinquishing any of their control, are faced with a number of other internal constraints. Most important is the level of business expertise held by the owner. Successful expansion requires that the owner is competent in not only production, but also in areas of design, marketing, and finance. Even if the owner possesses these skills, he must then coordinate his activities so that certain areas of the business are not neglected.

Manager-operated firms are able to avoid many of these problems by establishing a division of authority in which individual managers possess specialised skills (eg. marketing, finance, or technical), and are responsible for only a particular segment of the overall process of accumulation. While the owner of the firm may act as chief executive, the decision-making process for most major decisions involves contact with a management team, the majority of whom are not major shareholders in the company. The security of their positions within the firm is linked primarily to their managerial performance. Given the greater range of expertise generally available within manager-operated firms, they are more likely to undertake and survive expansion than are owner-managed operations. In addition, having already surrendered a portion of functional control to other managers, owners of manager-operated firms are less likely to resist expansion on the basis of a perceived loss of authority over the operation.

Discussions held with senior executives of indigenous firms indicate strongly that whether or not there is separation of ownership and managerial control is most critical to

understanding the relevant processes of change within indigenous capital. Other approaches, including Taylor and Thrift's (1982a) segmented economy framework, are less suitable for examining indigenous firms within the local capitalist environment. The particular character of indigenous capital within Tasmania is, in a number of ways, different from the operating segments described by Taylor and Thrift. For example, as demonstrated in Chapter 4, only a handful of indigenous manufacturing firms in Tasmania operate as satellites to large business organisations. In addition, both the small size of the local market and virtual lack of competition between indigenous and non-locally owned manufacturing enterprises makes the distinction between laggard and loyal opposition segments (see Figure 1.4) extremely problematic within Tasmania. Clearly, however, there are a number of close links between the notion of segmentation developed by Taylor and Thrift, and the conceptualisation of owner-managed versus manager-operated enterprises adopted for the Tasmanian study. For instance, the character of Taylor and Thrift's laggard small firm segment, incorporating craftsman and satisfied firms, is aligned closely with the small owner-managed enterprises described above. Such firms are typically satisfied with the profits realised from existing products and markets, and expansion, involving a reduction in owner-autonomy, is often resisted.

The following paragraphs discuss the prevalence and nature of owner-managed and manager-operated indigenous enterprises within the state's manufacturing sector. In this section, the population of firms represented by the 81 interviewed is used so that comparison with other descriptions of aggregate structures within the state's manufacturing economy (eg. section 3.4) is possible. Subsequent discussion of processes within owner-managed and manager-operated firms, however, is based solely upon the sample of firms interviewed.

### **5.2.2 The Character of Owner-Managed and Manager-Operated Indigenous Enterprises Within Tasmanian Manufacturing**

Results from the survey of indigenous manufacturers indicate that 82.6 per cent (N=309) of all indigenous enterprises are owner-managed operations (Table 5.13). Together, these operations employ 53 per cent of the indigenous manufacturing

**Table 5.13: Number of Enterprises and Employment Control Among Owner-Managed and Manager-Operated Indigenous Enterprises, 1985**

Employment Group	Number of Enterprises						Persons Employed					
	Owner-Managed		Manager-Operated		Total		Owner-Managed		Manager-Operated		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
1-9	182	100	-	-	182	100	891	100	-	-	891	100
10-25	64	63.4	37	36.6	101	100	1,146	60.8	736	39.2	1,182	100
26-50	45	88.3	6	11.7	51	100	1,667	88.0	227	12.0	1,894	100
51-99	16	66.7	8	33.3	24	100	1,118	62.7	663	37.3	1,781	100
100+	2	13.4	13	86.6	15	100	656	16.9	3,244	83.1	3,900	100
<b>Total</b>	<b>309</b>	<b>82.6</b>	<b>65</b>	<b>17.4</b>	<b>374</b>	<b>100</b>	<b>5,479</b>	<b>52.9</b>	<b>4,870</b>	<b>47.1</b>	<b>10,349</b>	<b>100</b>

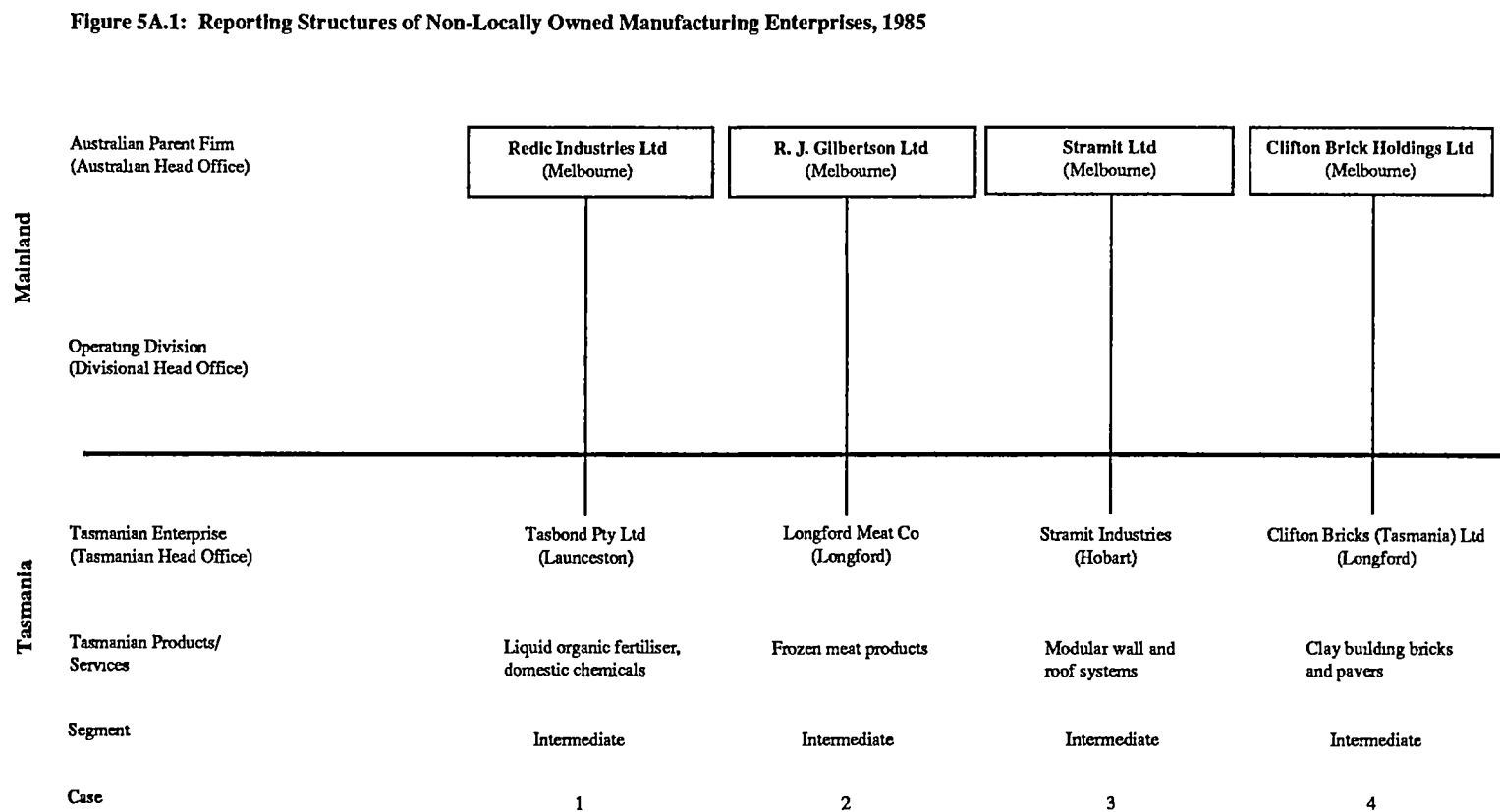
Source: Tasmanian Manufacturing Survey, 1986

workforce. Owner-managed firms are typically small, accounting for 87 per cent of indigenous enterprises employing fewer than 50 persons. In fact, all of the 182 indigenous firms employing fewer than 10 persons are owner-managed. Manager-operated enterprises are typically larger, employing an average of 75 employees. A total of 13 manager-operated firms employ more than 100 persons, compared to only two owner-managed enterprises. As expected, manager-operated firms tend also to be longer established than those owner-managed. The average time manager-operated enterprises have been operating is 36 years, compared to 22 years among owner-managed firms.

In addition to being small employers, three-quarters of all owner-managed firms are single-site operations, and less than 10 per cent operate from more than two establishments. Most owner-managed firms also contain a single-divisional structure within which a narrow range of products is manufactured. In contrast, manager-operated firms are likely to manufacture a wider range of products. Over one-half of all manager-operated firms are multi-site operations, 40 per cent of which comprise at least three establishments. Eight of the 12 indigenous enterprises described in Chapter 4 as following a strategy of multi-regional expansion are thus manager-operated. Although the majority of large indigenous manufacturing firms are manager-operated, most are still held under private family ownership. Of the 65 manager-operated enterprises only eight, including six public companies and two co-operatives, are owned by a large number of shareholders. Even among these eight companies, one-half of all chief executives are descendants of the founding Tasmanian family.

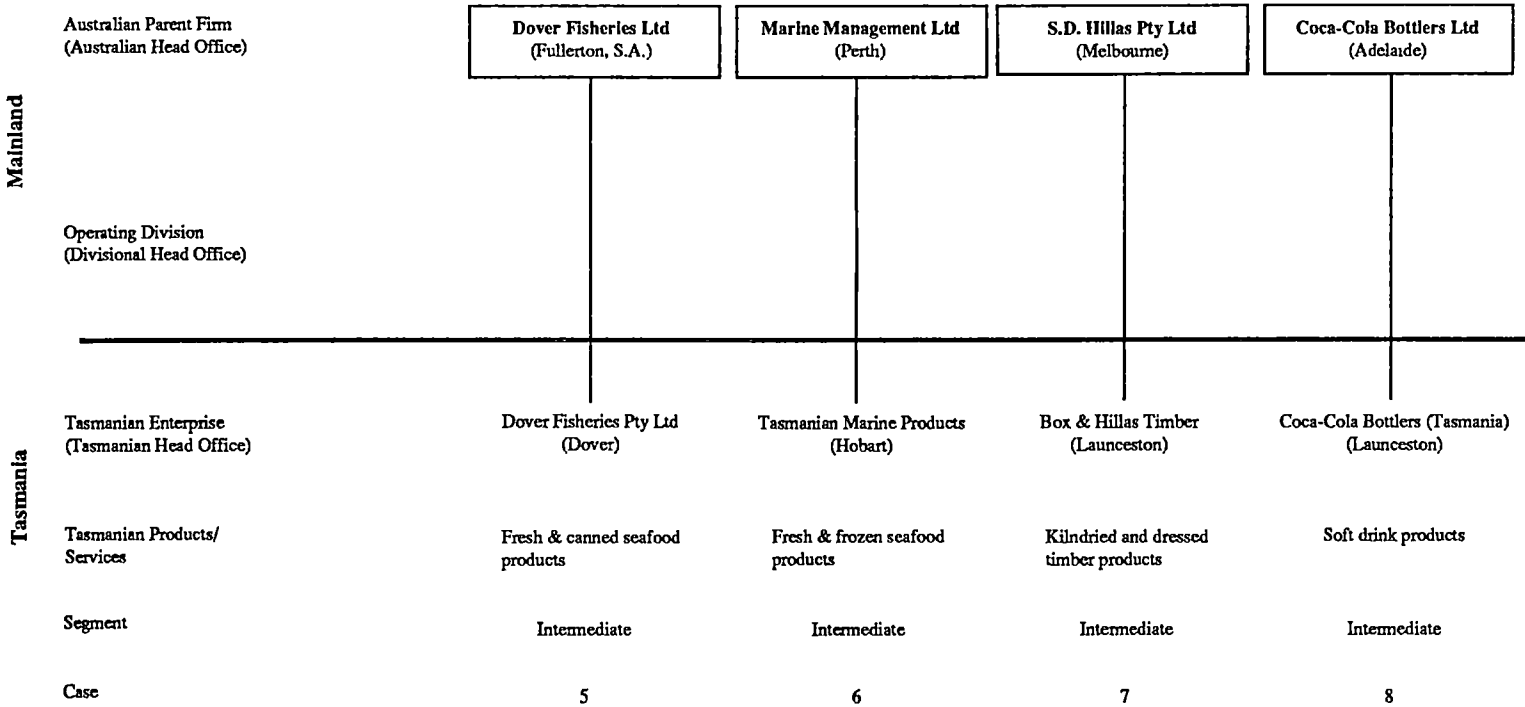
The following chapter examines the nature of growth strategies adopted by Tasmanian manufacturing enterprises between 1980 and 1985, and structural changes taking place within the state's manufacturing economy. Particular emphasis is given to the development objectives of indigenous and external capital, and the processes by which these objectives are reached given the constraints imposed by the capitalist system within which firms operate.

**FIGURE 5A.1**



Source: Tasmanian Manufacturing Survey, 1986 and company reports

Figure 5A.1 (continued)



Source: Tasmanian Manufacturing Survey, 1986 and company reports

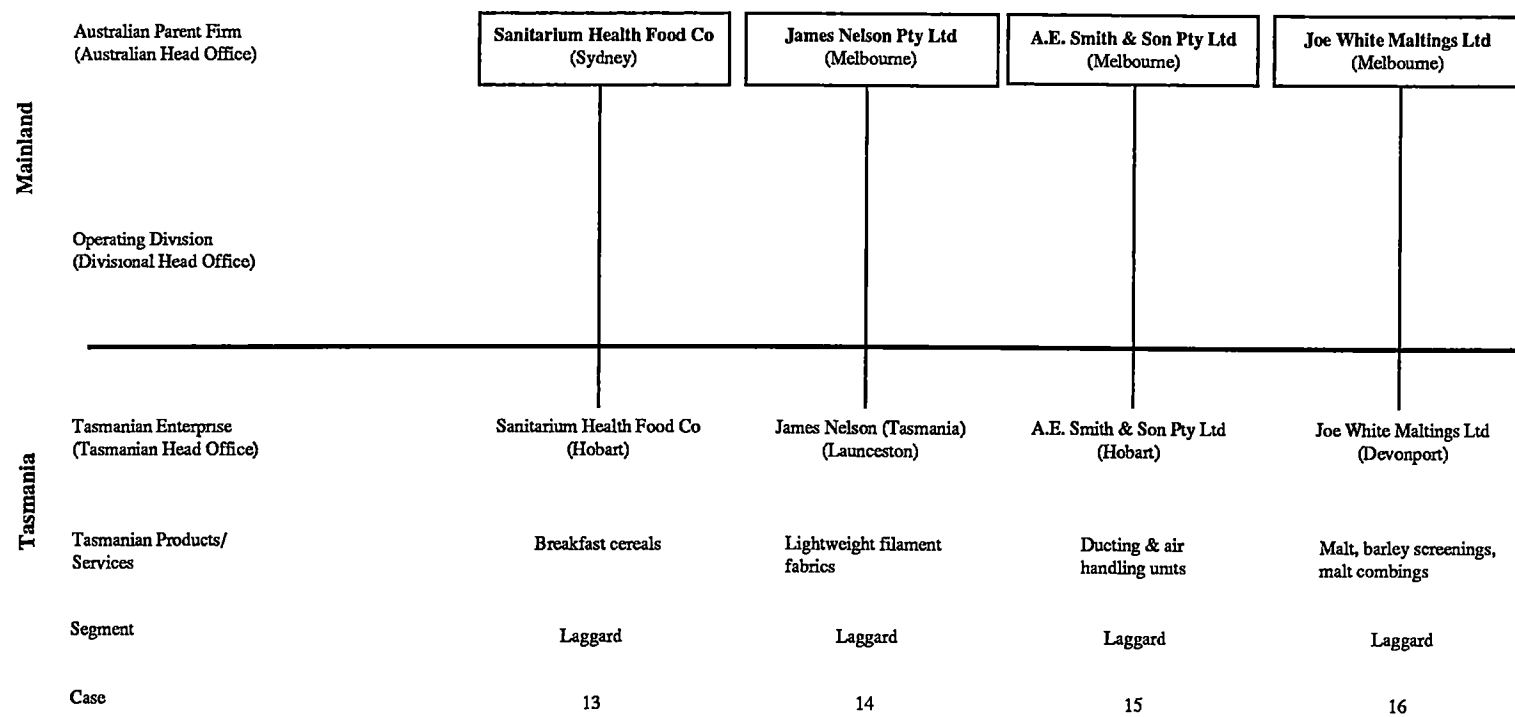


Figure 5A.1 (continued)

Overseas	International Holding Company (Country of Incorporation)	The East Asiatic Co Ltd (Denmark)	The Robbins Company (USA)	Tioxide Group PLC (UK)	Bongrain SA (France)
Mainland	Australian Parent Firm (Australian Head Office)				
	Operating Division (Divisional Head Office)				
Tasmania	Tasmanian Enterprise (Tasmanian Head Office)	Kauri Timber Co Ltd (Smithton)	Robbins Pty Ltd (Kingston)	Tioxide Australia (Burnie)	Lactos Pty Ltd (Burnie)
	Tasmanian Products/ Services	Timber products	Mechanical excavation equipment	Titanium dioxide pigments	Speciality cheeses
	Segment	Intermediate	Intermediate	Intermediate	Intermediate
	Case	9	10	11	12

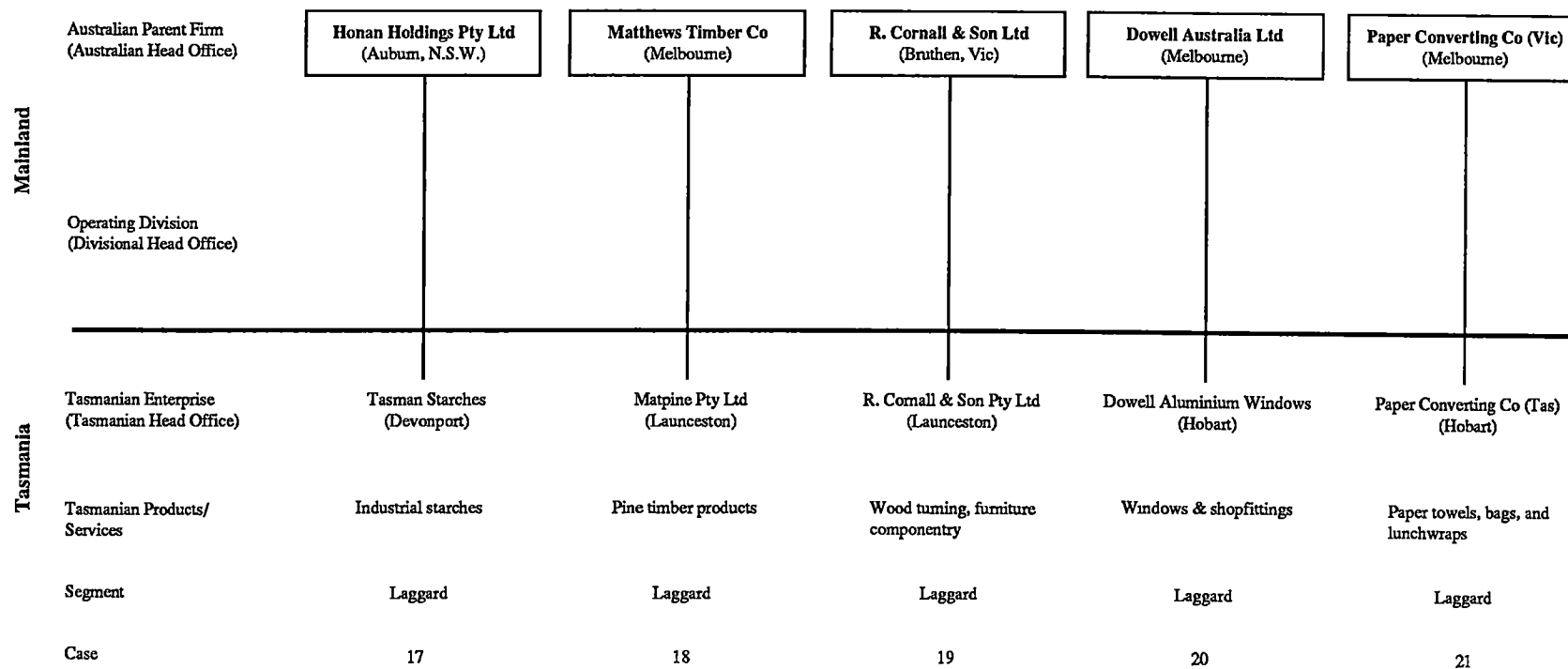
Source: Tasmanian Manufacturing Survey, 1986 and company reports

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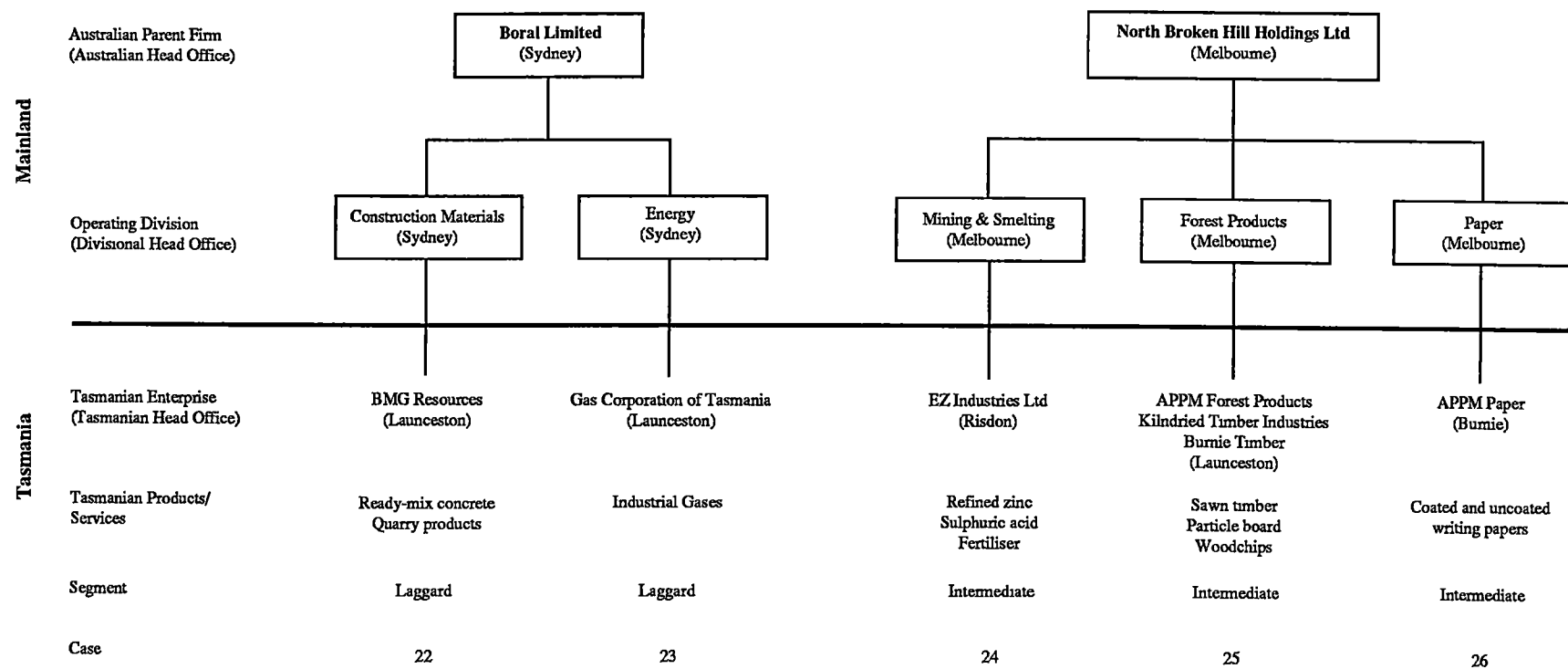
Source: Tasmanian Manufacturing Survey, 1986 and company reports

Figure 5A.1 (continued)



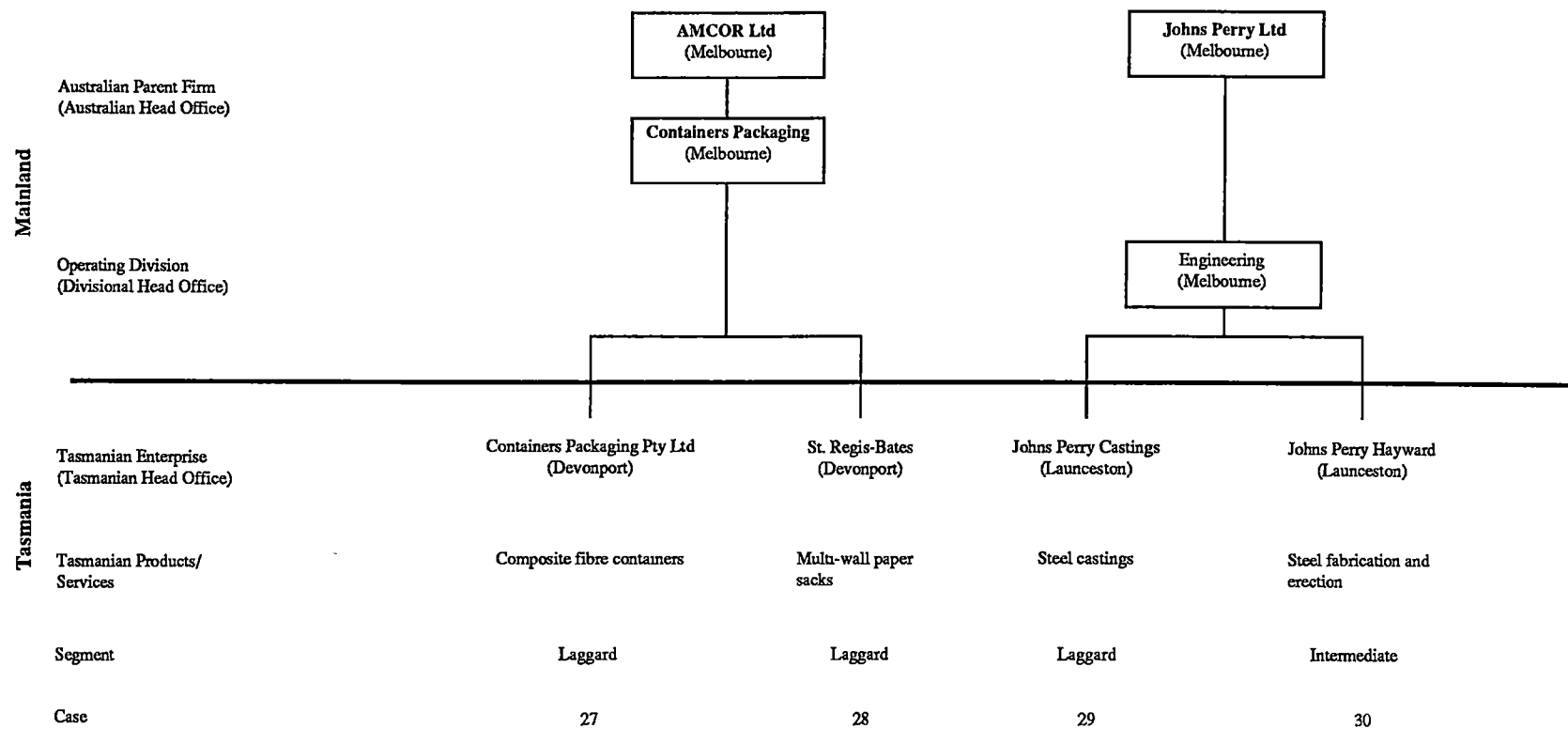
Source: Tasmanian Manufacturing Survey, 1986 and company reports

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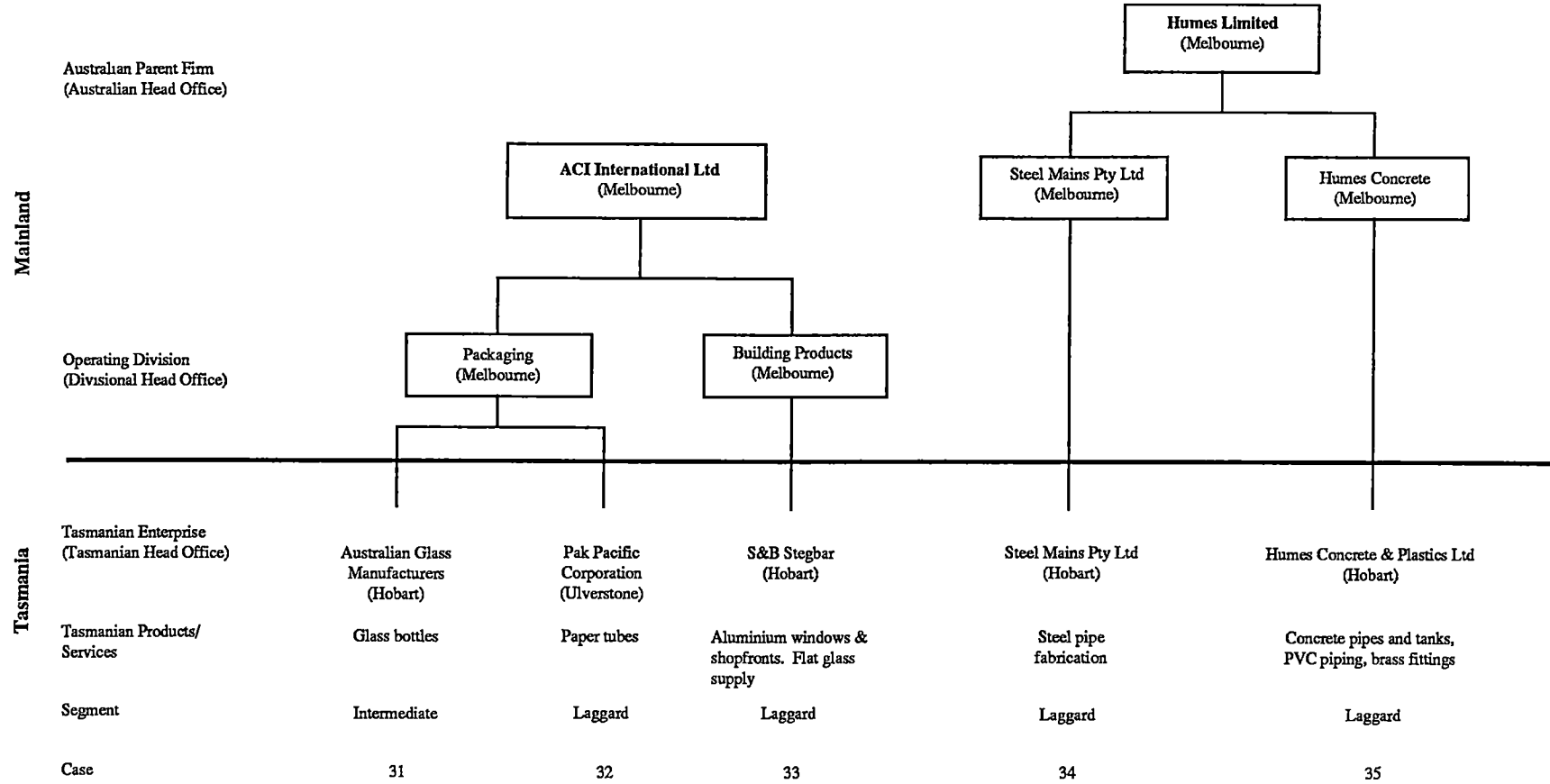
Source: Tasmanian Manufacturing Survey, 1986 and company reports

Figure 5A.1 (continued)



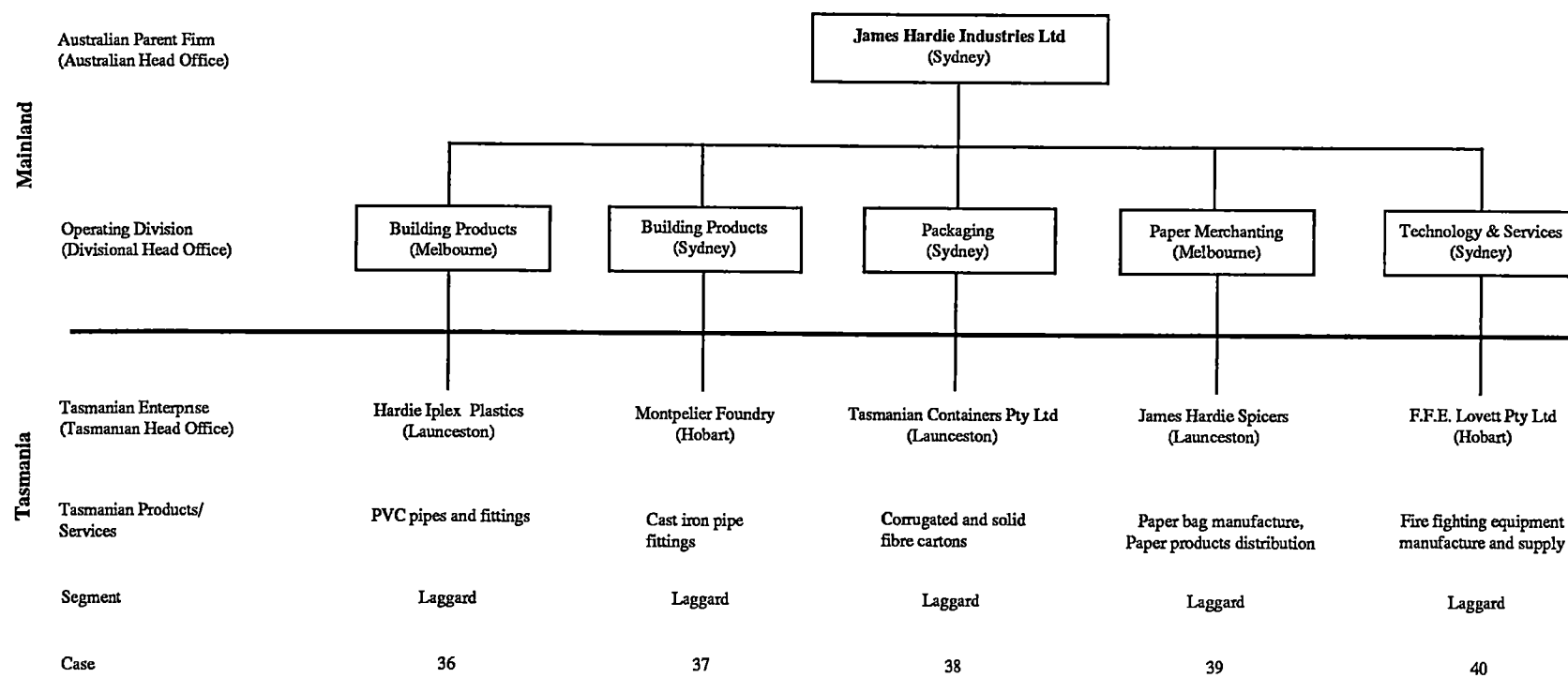
Source: Tasmanian Manufacturing Survey, 1986 and company reports

Figure 5A.1 (continued)



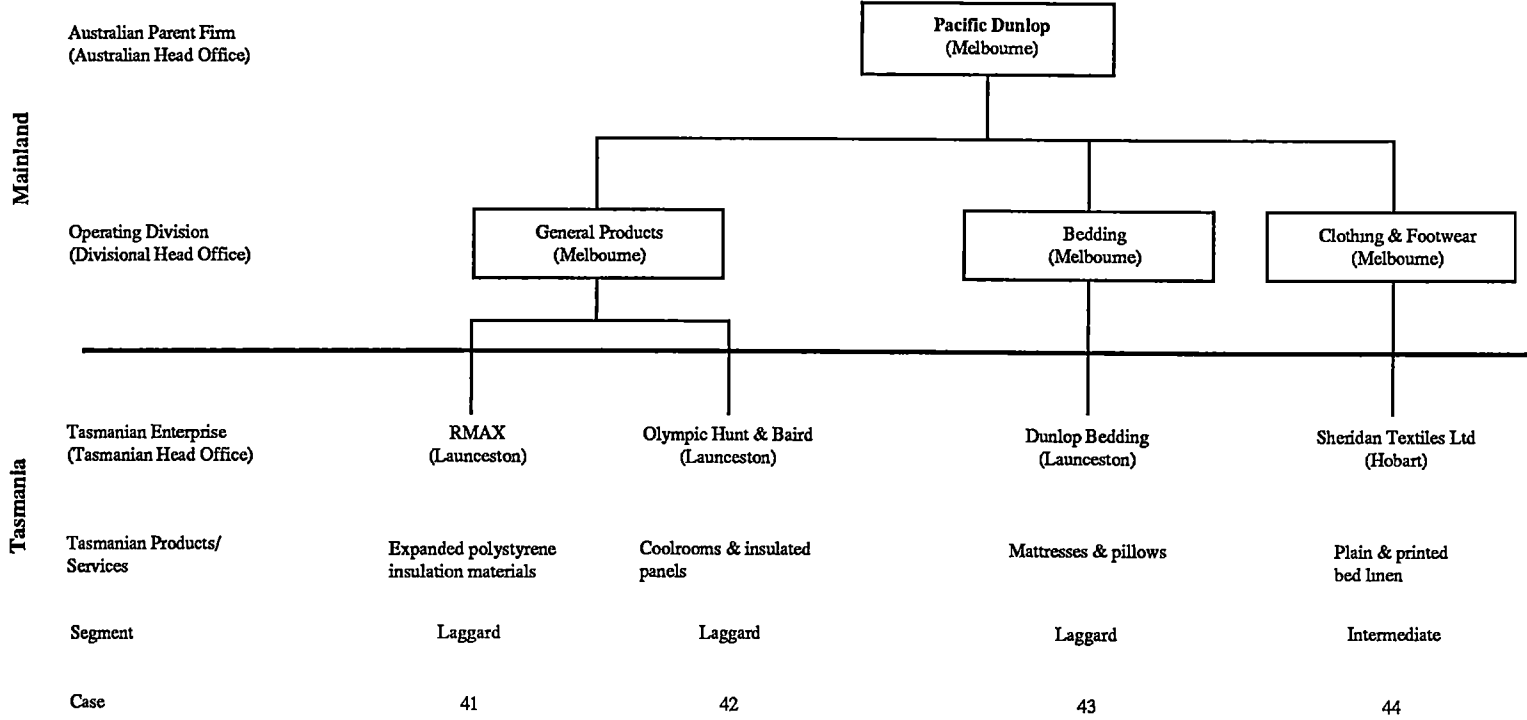
Source: Tasmanian Manufacturing Survey, 1986 and company reports

Figure 5A.1 (continued)



Source: Tasmanian Manufacturing Survey, 1986 and company reports

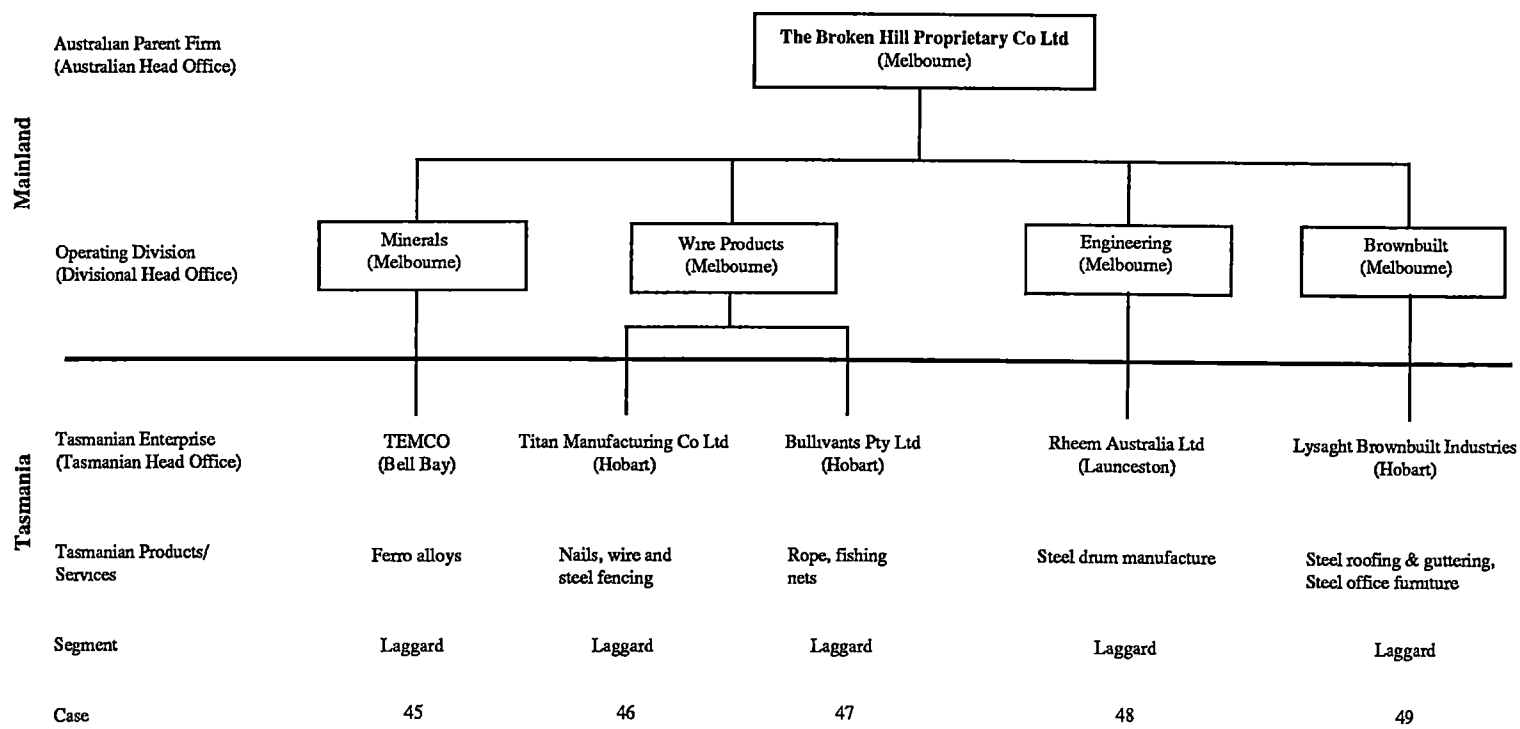
Figure 5A.1 (continued)



Source: Tasmanian Manufacturing Survey, 1986 and company reports

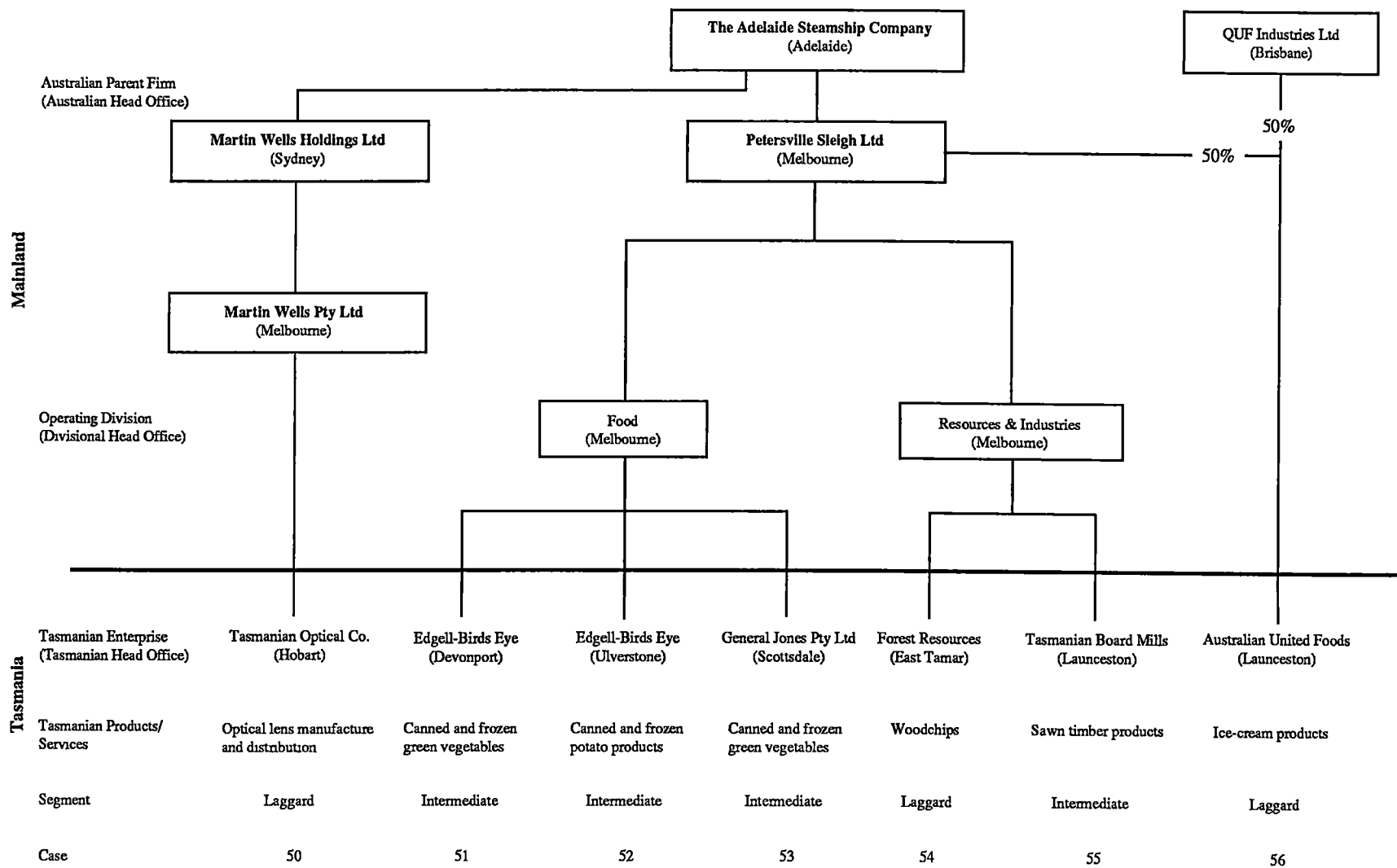


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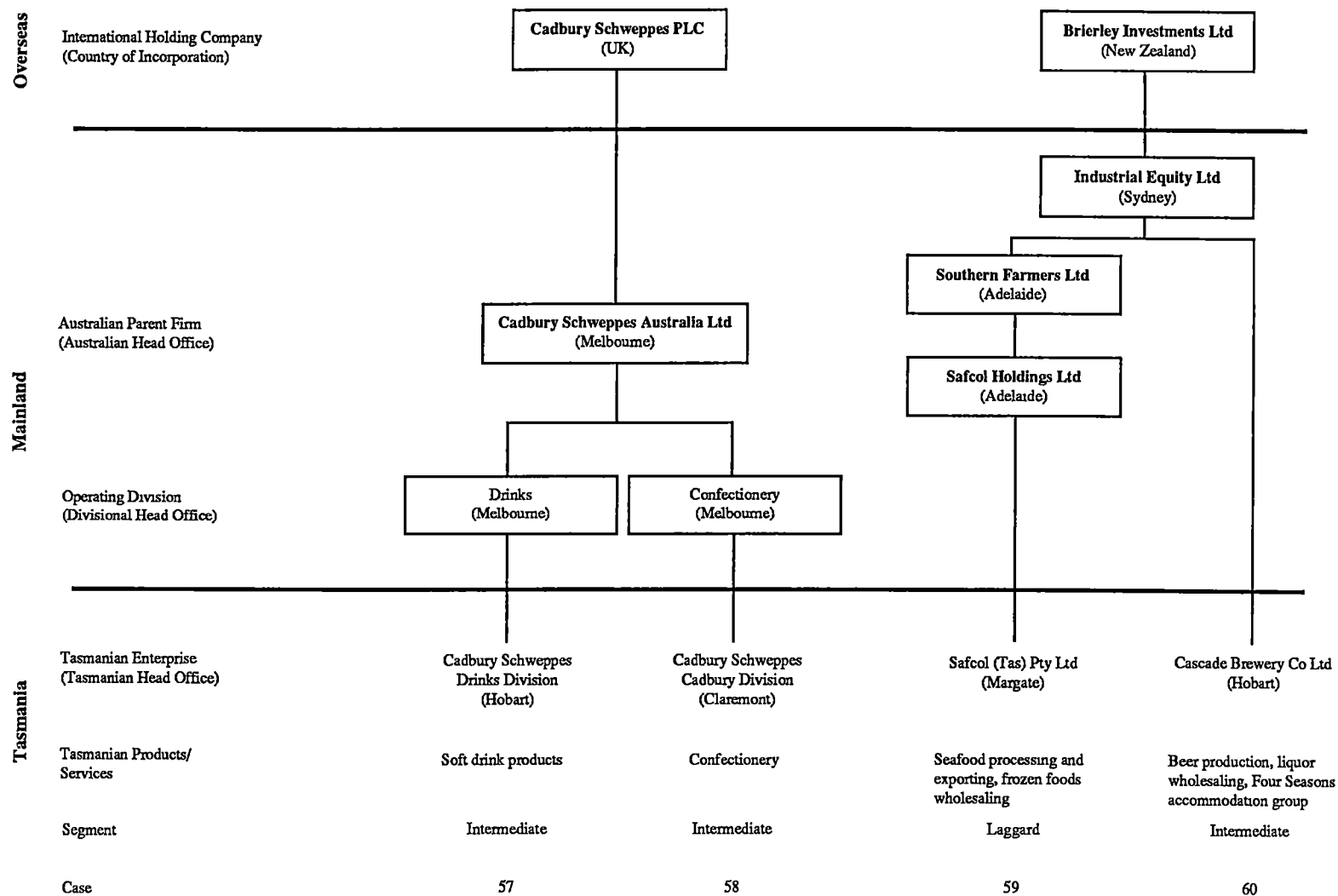
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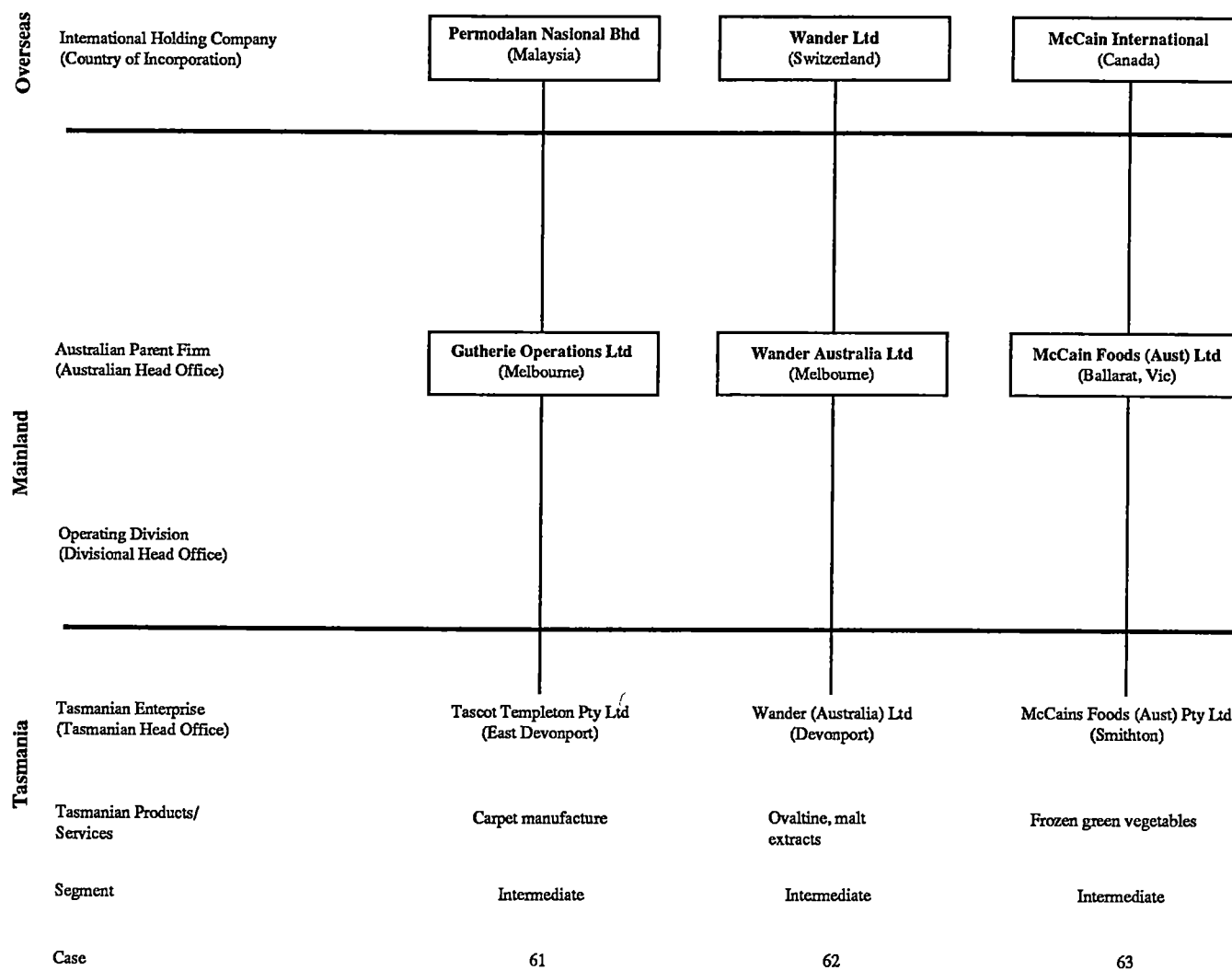
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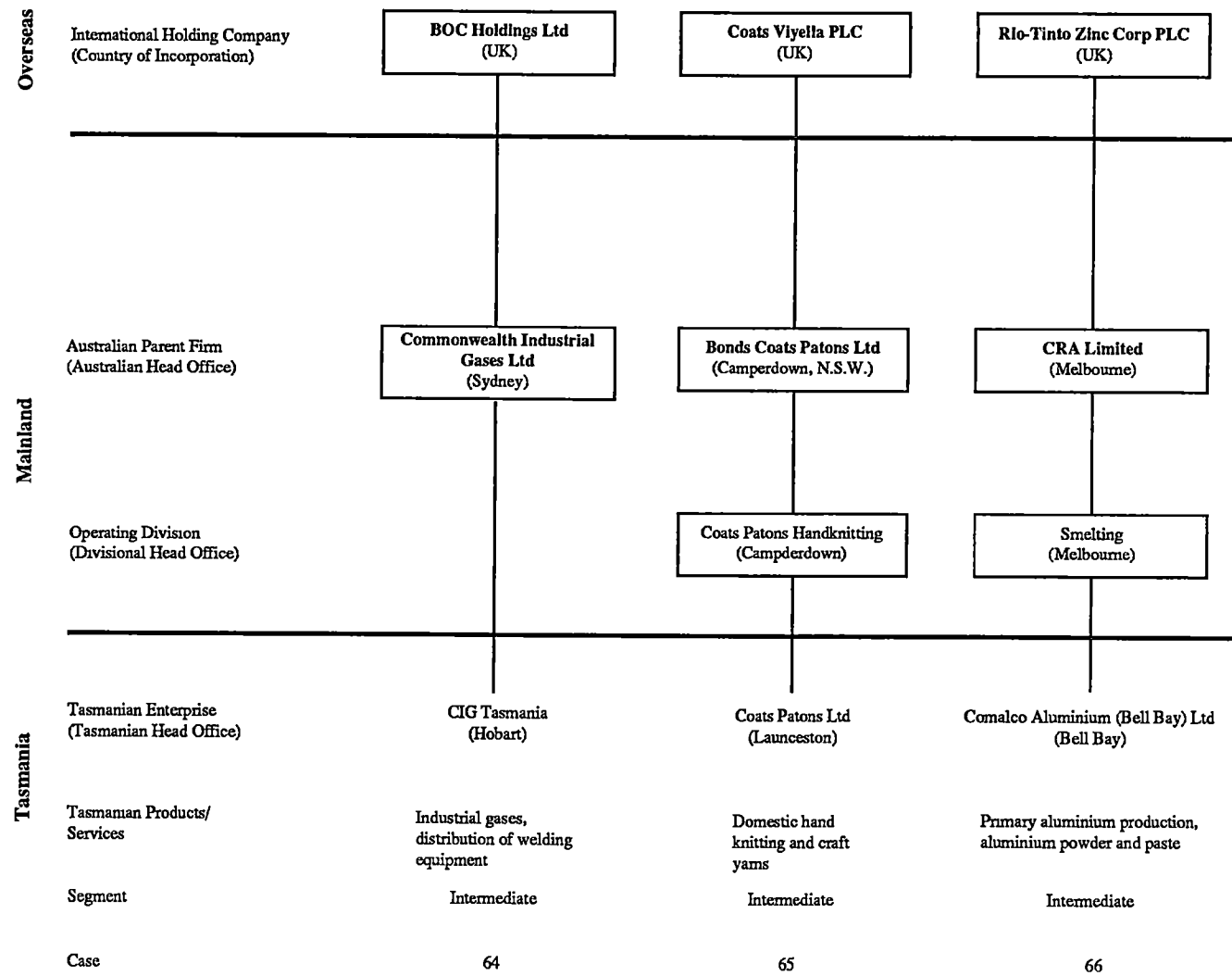
Source: Tasmanian Manufacturing Survey, 1986 and company reports

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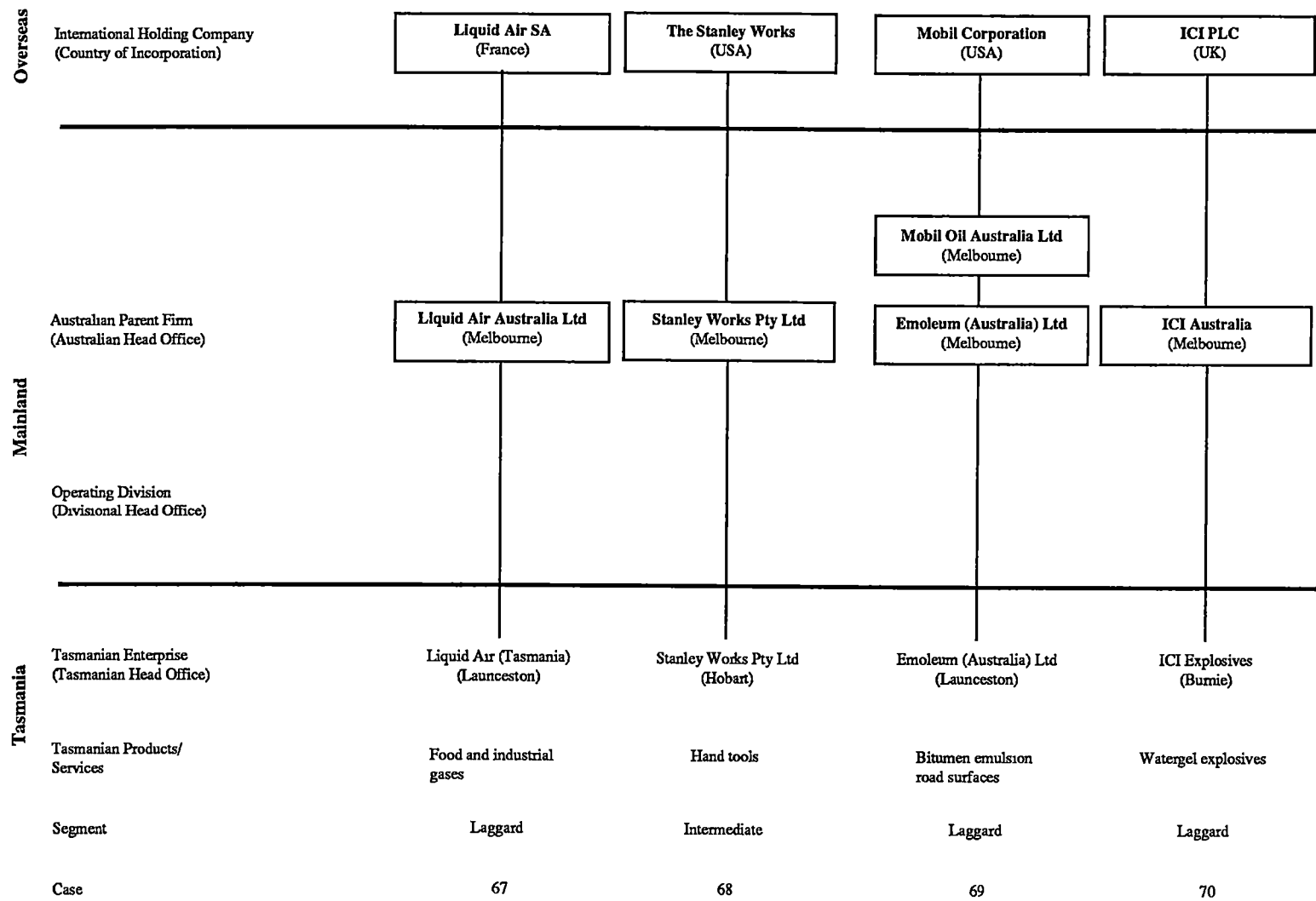
Source: Tasmanian Manufacturing Survey, 1986 and company reports

Figure 5A.1 (continued)



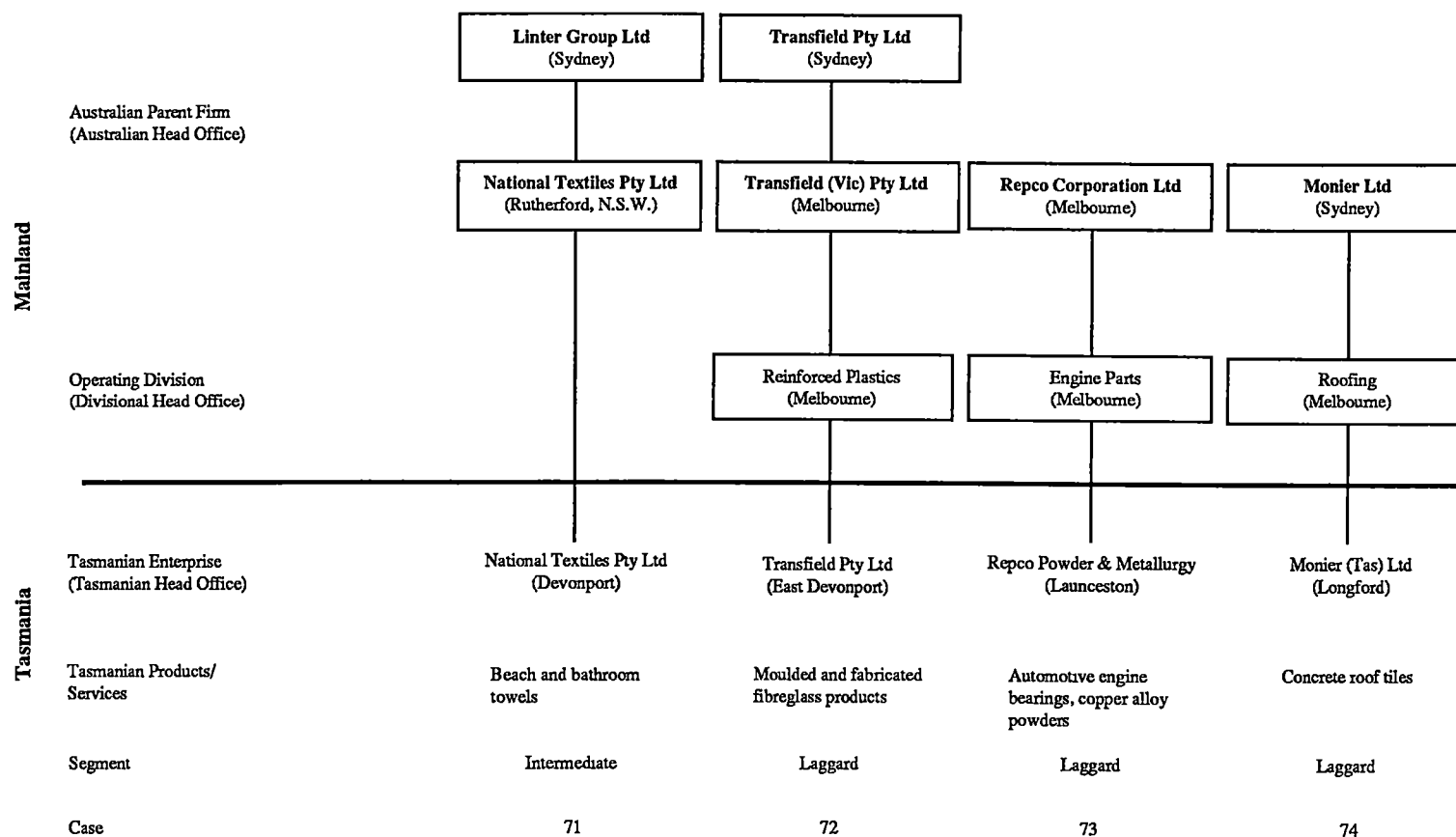
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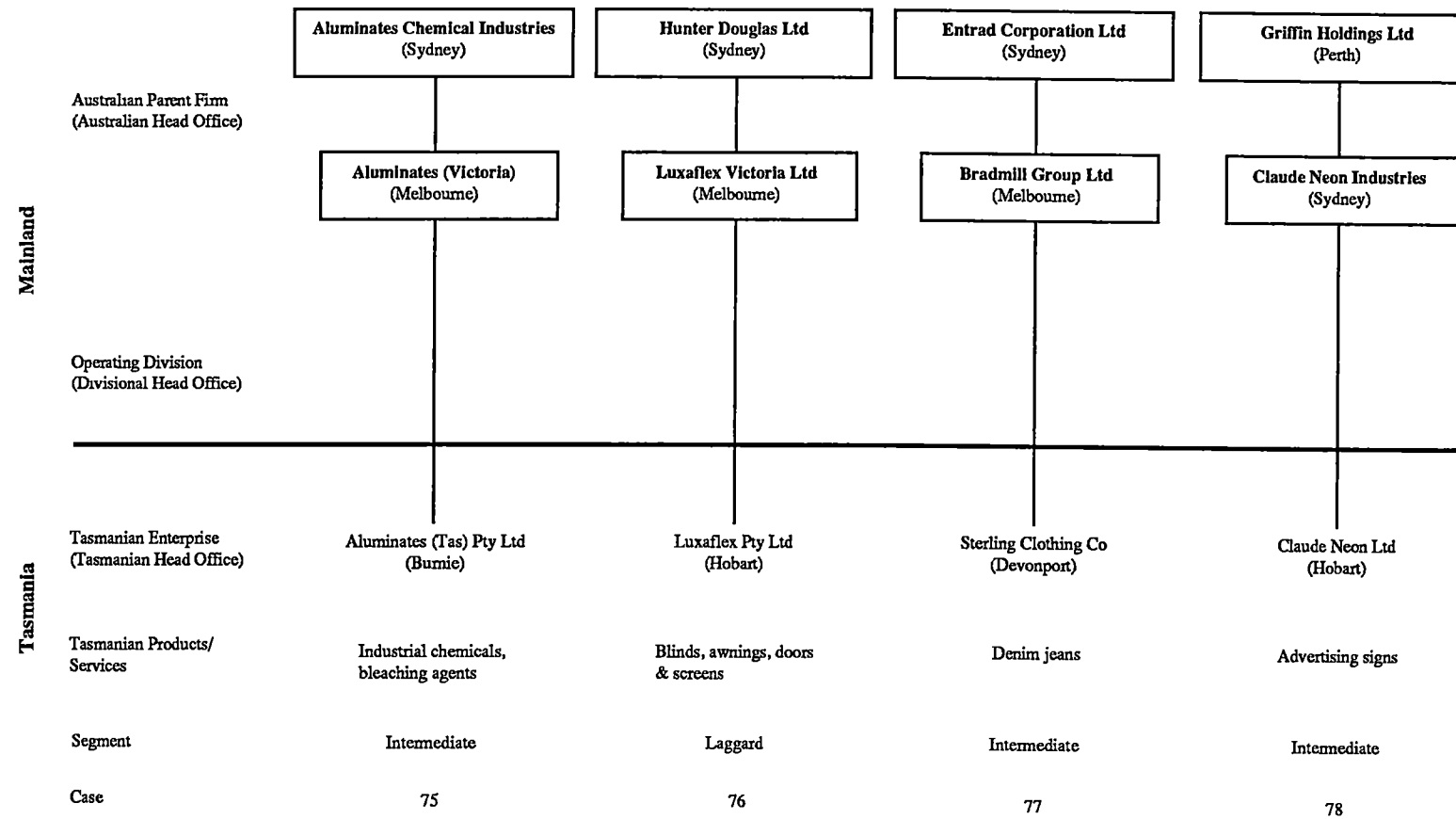
Source: Tasmanian Manufacturing Survey, 1986 and company reports

Figure 5A.1 (continued)



Source: Tasmanian Manufacturing Survey, 1986 company reports

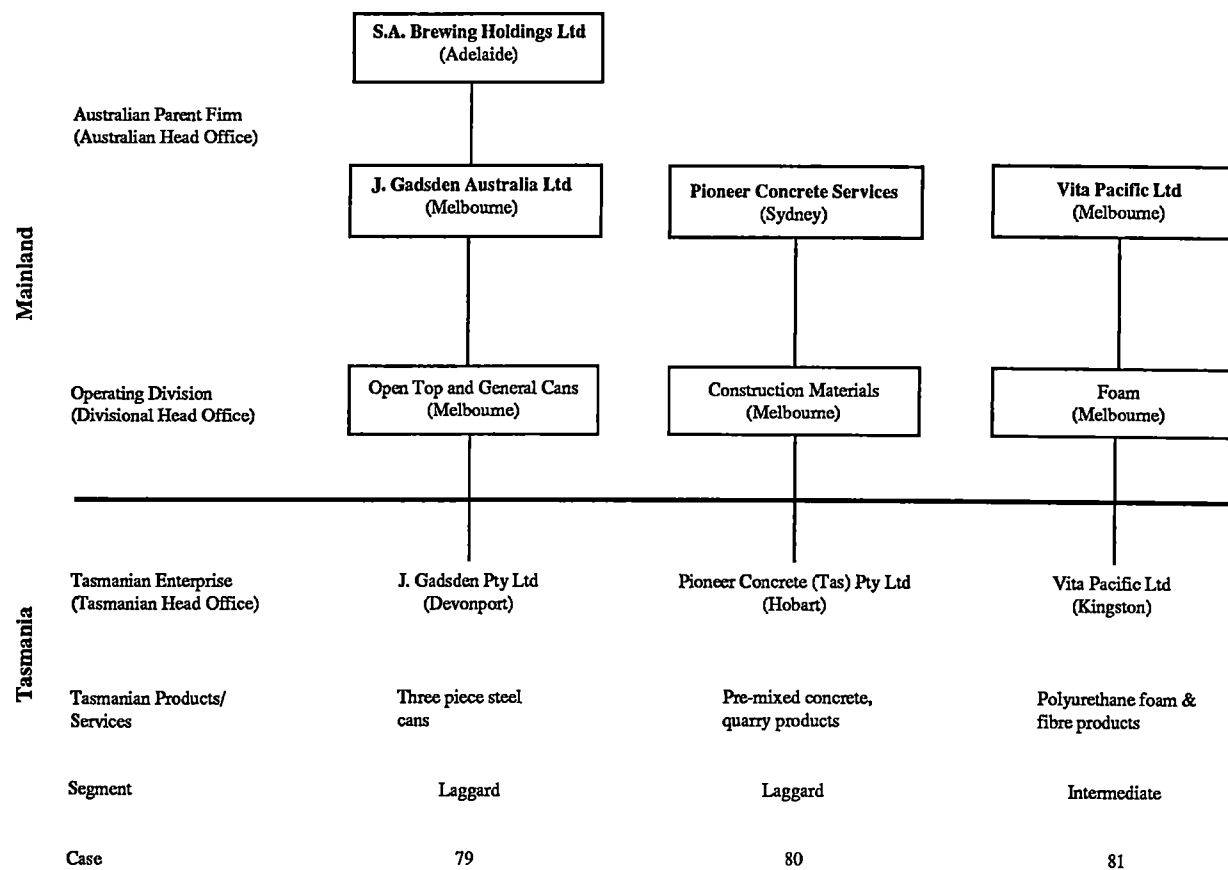
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Source: Tasmanian Manufacturing Survey, 1986 and company reports

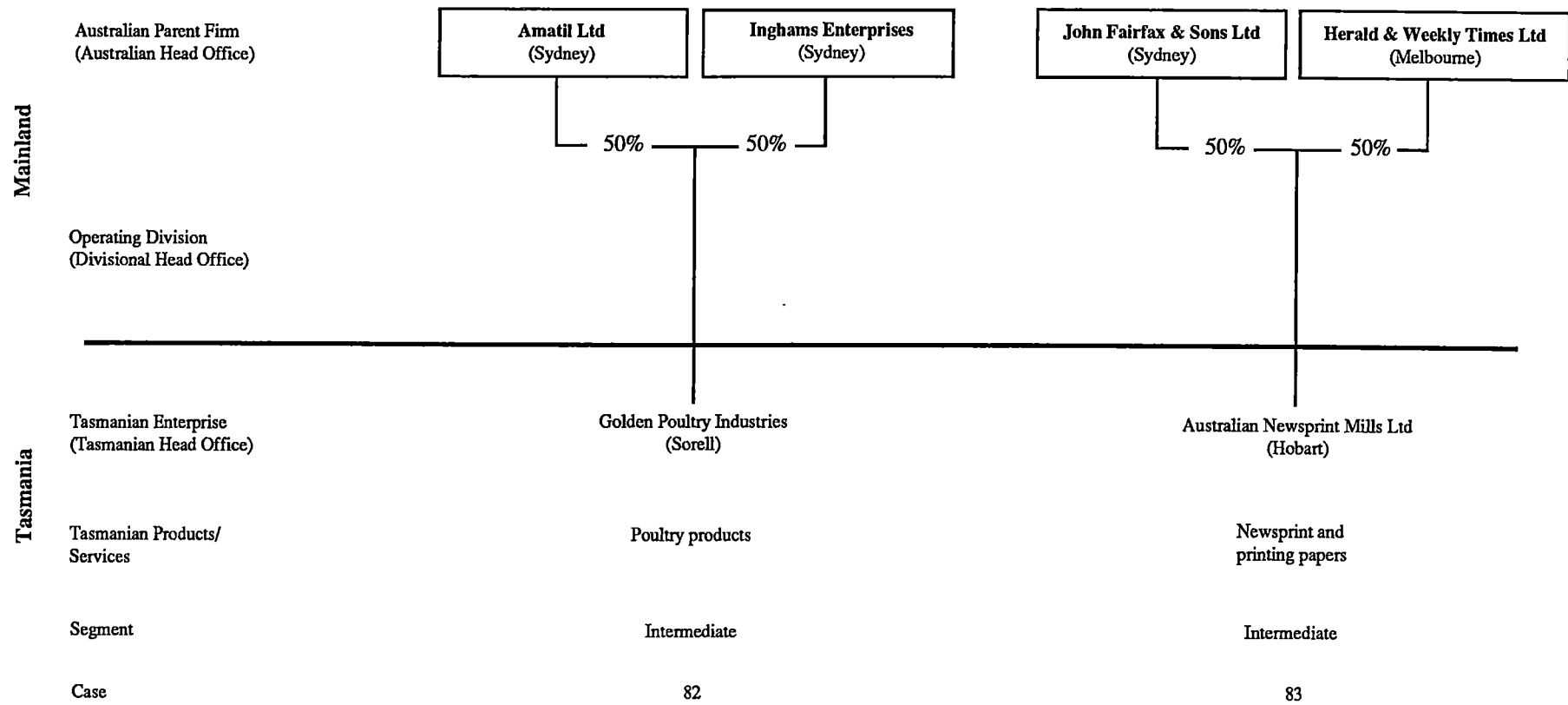


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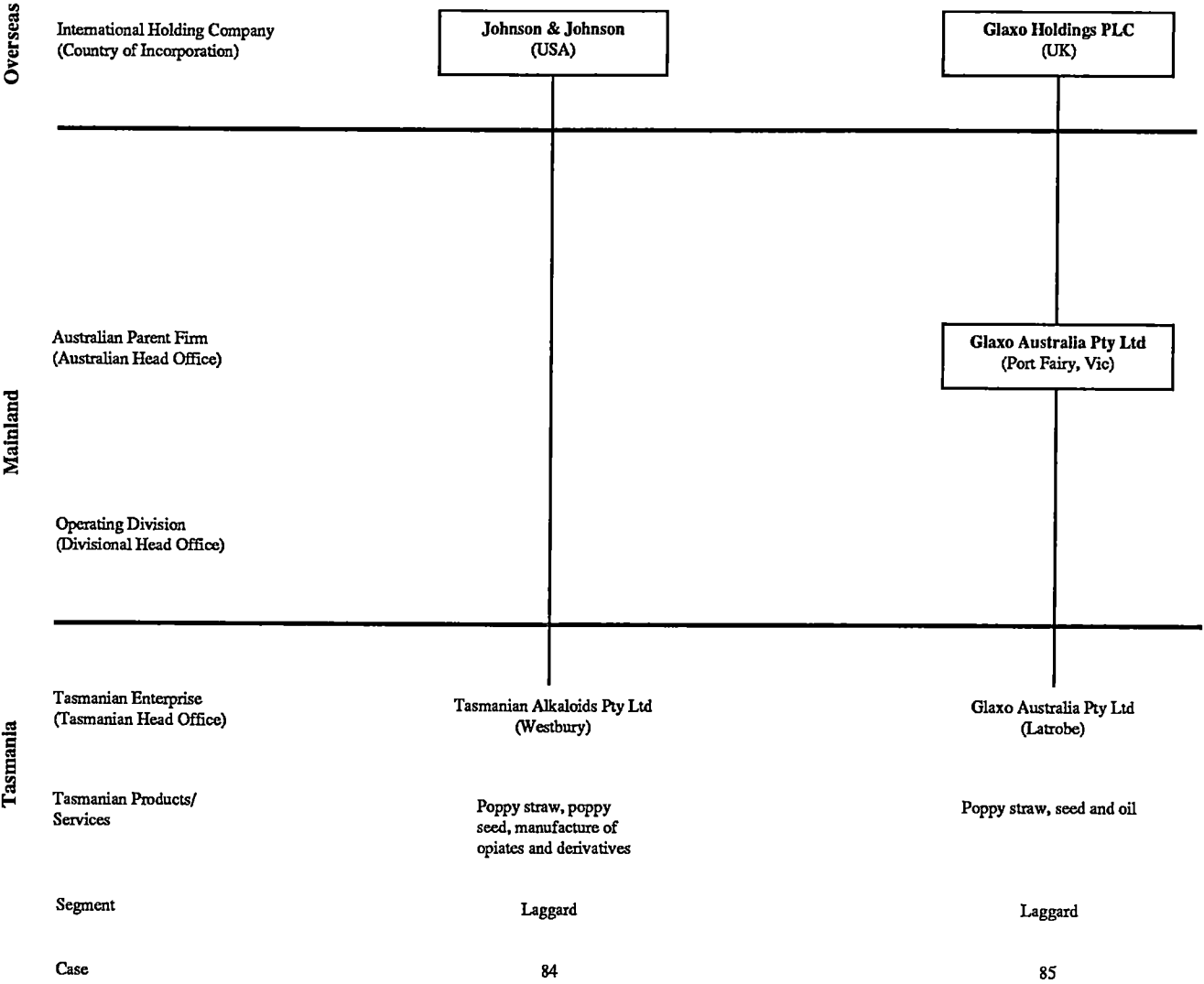
Source: Tasmanian Manufacturing Survey, 1986 and company reports

Figure 5A.1 (continued)



Source: Tasmanian Manufacturing Survey, 1986 and company reports

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Source: Tasmanian Manufacturing Survey, 1986 and company reports

## **CHAPTER 6**

### **STRATEGIES OF GROWTH WITHIN THE TASMANIAN MANUFACTURING SECTOR**

Following from the discussion in Chapter 5 of enterprise differentiation among the state's indigenous and non-locally owned manufacturing firms, the present chapter evaluates the growth strategies adopted by enterprises, and the nature of structural change within Tasmania's manufacturing economy between 1980 and 1985. A central argument of the chapter is that the processes of growth and decline within the state's manufacturing sector are best understood in relation to the power and organisational relationships identified earlier in the thesis. Thus, changes taking place within laggard and intermediate non-locally owned firms, and in owner-managed and manager-operated indigenous enterprises are considered most relevant.

The chapter is divided into four main sections. First, the constraints to growth influencing indigenous and non-locally owned enterprises within Tasmania are summarised. Second, given the constraints to growth, the various strategies available to manufacturing enterprises in Tasmania are discussed. Third, the actual growth strategies adopted by Tasmanian enterprises between 1980 and 1985 are evaluated, emphasising the varying complexity of processes operating among indigenous and external capital. The chapter concludes with an examination of structural change within the state's manufacturing economy between 1980 and 1985. Most important are changes involving employment, investment, and the physical output of manufactured product. The aggregate structural changes taking place are related to the different growth strategies being followed by manufacturing enterprises.

The chapter will show that constraints to growth vary enormously between the different modes of capital operating within the state. Within small owner-managed firms, constraints internal to the enterprise such as management ability, negative perceptions of growth, and the ability to raise finance capital, are most important. Among medium to

large-sized indigenous firms, the potential for growth offered by the local market and the difficulties involved in servicing markets outside the state are most relevant. Among virtually all non-locally owned enterprises, growth is constrained primarily by the lack of control functions held by Tasmanian managers. Among laggard segments, in particular, strategies adopted locally are dependent upon those formulated at the national level. An external constraint affecting many intermediate segments is the limited availability of natural resources.

Given these constraints, a wide range of strategies have been adopted by the state's manufacturing enterprises. The largest number of manufacturers, including most small indigenous firms, have done very little to expand the scope of their operations since 1980. The majority of investment within these firms has focused upon either the maintenance of existing activities or the reduction of variable operating costs. A smaller number of enterprises have expanded their manufacturing operations, centring primarily upon the development of existing product lines and markets. A number of firms, mostly large indigenous operations, have diverted capital out of production activities into areas such as retailing, trade services, and equity investment. The movement away from production activities by several of the state's oldest and largest indigenous manufacturers highlights both the limited potential for expansion of manufacturing within the local market, and an attempt to diversify out of resource-based industries characterised by declining levels of natural resources. Most of Tasmania's largest non-locally owned enterprises have adopted growth strategies aimed at significant reductions in variable production costs, particularly in terms of labour input. Within an increasingly difficult export trading environment, managers of these firms perceive the reduction of labour costs as a central element in determining their long-term competitiveness.

A third theme of the chapter is that structural change within the state's manufacturing economy between 1980 and 1985 reflects the dominant strategies adopted by indigenous and non-locally owned enterprises. In terms of employment, the majority of job loss has occurred within large non-locally owned resource-based enterprises oriented toward export markets. Non-locally owned laggard segments, selling primarily within the local market,

have also decreased employment over the five year period as the level of business activity has declined within several of these operations. Among indigenous enterprises, most job loss has taken place within a few large resource-based firms. The most stable employers within the state's manufacturing sector have been small to medium-sized indigenous operations which have increased their level of production activity, and a small number of large indigenous firms which have generated employment through expansions outside manufacturing.

### **6.1 CONSTRAINTS TO GROWTH AMONG INDIGENOUS AND EXTERNALLY OWNED ENTERPRISES**

At any given time in its history, the strategies adopted by a manufacturing enterprise are determined by the abilities and goals of management, as well as the opportunities and restrictions of the capitalist system in which the firm operates. The relationship between structure and agent is central to the dynamics of change within capitalist economies. As suggested in Chapter 1, this important relationship was underplayed in many of the behavioural studies of the early 1970s which focused upon the agent as the dominant influence in economic change. Conversely, many of the Marxist studies written in the late 1970s virtually ignored the role of individual agents, emphasising instead the controlling influence of capitalist structures themselves. The current view is that a balance of the influence of structure and agent must be addressed; on the one hand individual agents are constrained by the capitalist system yet on the other they have some freedom to act within and even change the local expression of capitalism. The following paragraphs discuss the dominant constraints to growth within the state's manufacturing sector, emphasising processes which originate both within and external to business enterprises. Discussion extends the summary of literature presented in Håkanson (1979). Following Håkanson, the constraints to growth are categorised as four dominant types. They are managerial, demand, financial, and locational.

### **6.1.1 Managerial Constraints**

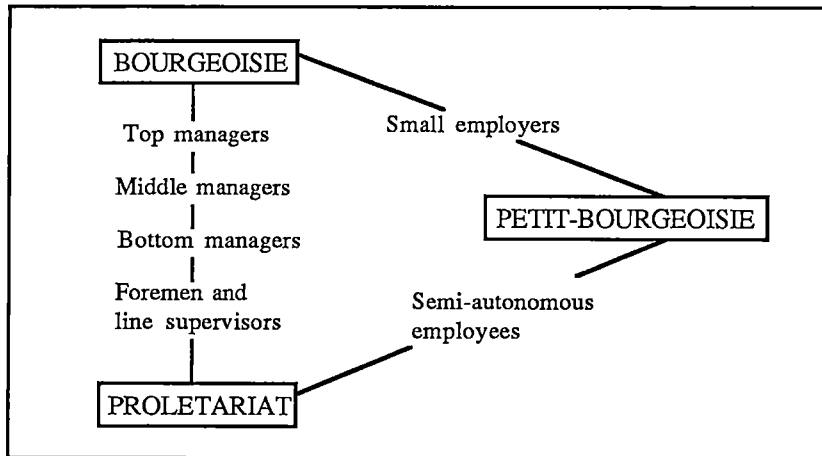
Of the dominant constraints facing the state's manufacturing enterprises, a number are related primarily to the internal conditions of the firm itself. Managerial constraints to growth involve both the goals of those owning an enterprise, and the abilities of enterprise managers to plan and undertake expansion programs. As demonstrated in Chapter 5, management and ownership are virtually synonymous among the majority of indigenous manufacturers, whereas the two are very much divided within non-locally owned enterprises. Assuming that opportunities exist for an enterprise to expand the scope of its operations, those owning the firm will not actually increase the level of business activity or undertake physical expansion without first having decided to pursue growth related strategies.

Clearly, the process of capital accumulation is guided by the social character of enterprises operating as individuals within the capitalist production system. In Massey's (1984) terms, the internal social structure of capitalist production comprises a number of classes differentiated in terms of their position in the relations of economic ownership and possession of capital. The bourgeoisie, representing the capitalists, makes the majority of decisions relating to the accumulation process as it maintains full control over economic ownership and the relations of production (Figure 6.1). Below the bourgeoisie, control over the ownership and possession of capital declines from top to bottom managers who each possess varying degrees of power within the capitalist organisation. Like the bourgeoisie, the petit-bourgeoisie maintains both ownership of capital and control over the physical means of production. However, the petit-bourgeoisie are different in that they are typically self-employed and do not have much control over the labour process. Many of these have chosen to operate small family enterprises because they wish to avoid both the loss of autonomy associated with working for others, and the complications of employing persons outside their immediate family. Enterprises falling somewhere between the petit-bourgeoisie and the bourgeoisie maintain full ownership of production capital, and employ wage labour. However, they differ in relation to their direct involvement in the accumulation process. Firms closely aligned with the bourgeoisie are typically larger



employers, and pursue strategies which seek to accelerate the rate of accumulation. Firms closer to the petit-bourgeoisie maintain less involvement in the labour process and are generally less concerned with the maximisation of surplus-value.

**Figure 6.1: Social Structures in Capitalist Production**



Source: Massey, 1984, p. 31.

Rather, they are characterised by a much broader range of attitudes toward growth and expansion.

Evidence from the survey of Tasmanian manufacturers suggests that the goals of enterprises are strongly linked to their relative positions within these social structures. Within the state's manufacturing sector, the smallest family owned indigenous enterprises typically operate as part of the petit-bourgeoisie. For these firms, most of which are owner-managed, the small profits available from existing products and markets are considered adequate. Expansion of activities, altering their position within the social structure of production, is not an option frequently chosen by the owners of these enterprises. In fact, 10 of the 23 indigenous enterprises employing fewer than 26 persons which were surveyed, stated explicitly that the physical expansion of their firm was not a strategy which they intended to pursue. Four managers of firms employing fewer than 10 persons indicated that they had originally established, and intended to maintain, the enterprise as a part-time 'hobby' interest. Managers of two other small enterprises, manufacturing stained glass and window frames, explained that their firm was set up to provide self-employment, and that it was unlikely they would ever employ workers

outside their immediate family. Managers of the four remaining enterprises, each employing between 10 and 25 persons, have purposely limited the size of their operations in order to avoid state payroll tax. Under the present tax legislation, firms which have an annual wage bill in excess of \$300,000 are required to pay a 6 per cent tax on total wages. By maintaining wages below the \$300,000 exemption, enterprises are able to realise an effective cost savings of 6 per cent against manufacturers subject to the tax. Although only four managers stated explicitly that the imposition of payroll tax was the prime motivation for their remaining small, a much larger number of respondents noted that the effect of the tax is one of several key factors which determine their attitude toward expansion.

The majority of the state's medium to large-sized indigenous firms fall somewhere between the *petit-bourgeoisie* and the *bourgeoisie*. The attitudes to growth among these firms are dependent upon a number of factors specific to each operation. In general, however, the largest indigenous firms are intent upon identifying and pursuing growth related strategies. As indicated in Chapter 5, these enterprises are predominantly manager-operated, with key operating decisions being made by a management team rather than only one individual. However, the direct involvement of owners within most privately owned manager-operated firms is very high. While most decisions involve the consultation of management, it is in fact the single owner who has the final say in directing the broad growth policies of the enterprise (see section 5.2). Only a handful of indigenous firms are publicly owned, and follow growth strategies which aim to maximise the returns to shareholders who, by their voting rights, maintain ultimate control over the company.

With respect to the state's 85 non-locally owned manufacturing enterprises, attitudes toward growth are formulated largely by managers of the parent company located outside Tasmania. As suggested in Chapter 5, local managers typically possess minimal control over key operating decisions, particularly those related to corporate growth policy. This is especially true for laggard operating segments which, in most cases, account for only a small percentage of their parent company's total capitalisation, employment and output within Australia. Although the majority of non-locally owned enterprises operate as part of large business organisations which, as public corporations, follow strategies attempting

to maximise the return to capital and labour inputs, the parent company's attitude toward the growth of its individual operating units is highly variable. In this respect, the visibility of local operations within their parent organisation is very important. The visibility of most laggard segments within Tasmania is low, as they either manufacture products or operate in markets which generate only minimal profits for their parent company. Given their marginal role in the overall accumulation process, these segments are unlikely to play a major part in their parent company's expansion programs. On the other hand, several of the state's large intermediate segments which generate considerable profits for their parent company are likely to play a more central part in the group's expansion.

Assuming that management in control of indigenous or non-locally owned enterprises decides to expand operations within Tasmania, a second possible managerial constraint to growth involves the ability of managers to carry out the tasks associated with expansion. Depending upon the nature and scale of the proposed developments, successful expansion requires that management be proficient in matters such as product development, marketing and advertising, finance, and quality control. In addition, expansions may generate changes within the social relations of production, transforming the processes of both labour and management organisation. Among indigenous enterprises, such constraints are most relevant to smaller owner-managed firms which must rely upon the abilities of a single person to carry out all functions associated with expansion. Although some owner-managers are certainly able to perform these required tasks, the vast amount of research into failures among small firms clearly demonstrates that a strong relationship does in fact exist between business failure and a lack of management ability (Brough, 1970; Johns, et al, 1983; Thompson and Leyden, 1983; Mason, 1984).

Results from the Tasmanian survey indicate that managers of most indigenous firms, particularly those which are both small and owner-managed, lack the skills necessary to enter successfully into major expansion programs. This is especially true among craftsman-based enterprises which are typically operated by an individual who is competent in areas of design and production, but lacks any practical experience in areas of accounting, finance, and market development. For many small indigenous firms, the only

source of information in these key areas is occasional advice gained from external accountants who prepare their company's income tax returns. Medium to large-sized indigenous enterprises typically possess a wider range of expertise. Within the few indigenous firms employing a number of managers, each responsible for only a particular segment of the total operation, expansion is much more feasible in terms of management's ability to divide responsibilities and deal effectively with the changes brought about by the firm's expansion. However, several managers of these firms suggested that their growth options were generally committed to existing product lines, as strategies of diversification away from established products were in fact beyond the expertise of the management team. The constraints imposed by managers having only limited experience in product development are critical in industries such as sawmilling where the movement into value-added processing would perhaps allow a firm to diversify out of a market in which it can not compete against larger capital-intensive producers.

As demonstrated in Chapter 5, the functional control of most Tasmanian managers of non-locally owned enterprises is limited primarily to routine production and administrative activities. The expertise of local managers in areas outside these routine functions is thus extremely narrow. However, the expertise available within the parent company outside the state is often extensive, especially within large multi-divisional or transnational organisations. Expansion undertaken by the Tasmanian operation would thus draw heavily upon the abilities of managers, and technical and support divisions based outside the state. Much of the previous research into external ownership has concluded that such links also provide a means by which indigenous enterprises within less developed areas are able to gain access to specialist information based outside the region (for example, see Watts, 1981). Evidence from the Tasmanian study indicates that there is virtually no transfer of information between indigenous and non-locally owned enterprises as only a handful of indigenous and non-locally owned operations, engaged in subcontract relations, are operationally interdependent. However, it is clear that expertise held by the parent company outside the state has historically played a major role in facilitating developments within Tasmania which would otherwise have not been possible given the character of the

local manufacturing economy.

### **6.1.2 Demand Constraints**

In addition to managerial constraints, a number of factors related to the demand for products manufactured are also relevant in shaping the nature of corporate growth processes within Tasmania's manufacturing economy. For the majority of enterprises undertaking expansion within their present range of manufactured products, the decision to expand is not made by senior management unless it is first believed that either the market in which the firm currently operates is growing, or that the physical expansion of production operations will somehow enable the enterprise to gain a larger share of the existing market.

In Marx's terms, expansion will only take place if capitalists believe they can realise an increase in the surplus-value generated during the production process. If the market itself is expanding, the rate at which the accumulation of capital takes place may be increased by management raising the physical output of the plant, thereby generating additional absolute surplus-value. For a firm to gain a larger share of an existing (stable) market, management must restructure production operations in order to become more competitive against other producers. Increases in productivity are typically brought about through reductions in the firm's variable cost structure. Such reductions often involve the adoption of technologies which lower the necessary labour time required to manufacture a given product unit. In this instance, the rate at which capital is accumulated is increased through changes in the relative surplus-value generated during the production process.

Within Tasmania's manufacturing sector, several important situations exist in which demand constraints influence the additional level of surplus-value which can be realised from existing product lines. First, growth among some enterprises is constrained as markets, for which they are manufacturing products, are declining. For firms manufacturing products for final demand markets, reductions in demand are generally associated with changes in consumer behaviour brought about by both changing social conditions and the introduction of new products which compete against those currently

available. For products such as ice cream, soft drinks, and confectionery, manufacturers must constantly be aware of, and revise products in accordance to, changes taking place within the consumer market. Firms must be able to adapt quickly to changing market conditions, and be able to finance the capital developments required to remain competitive against other producers. Tasmanian enterprises operating in consumer markets characterised by rapid changes are predominantly non-locally owned, and rely heavily upon their parent company's expertise in product and market development.

Demand constraint among enterprises operating within intermediate demand markets is often associated with a reduction in the number of customers available within the local region. Within Tasmania, several enterprises dependent upon formal or informal subcontract arrangements, in particular, have suffered in recent years as the number of customers has declined. For example, a non-locally owned firm manufacturing multi-wall paper sacks in Devonport has, since the mid-1970s, lost a significant portion of the local packaging market which it once held. During the 1960s, the company was established to supply paper sacks for EZ Industries' fertiliser plant, Tioxide's pigment factory near Burnie, and the Goliath cement works near Devonport. In the past ten years, EZ Industries has changed its packaging to plastic bags manufactured on the mainland, Tioxide has begun exporting much of its product in steel drums, and Goliath has become increasingly involved in bulk exports of cement. Although the packaging firm has recently picked up a minor amount of business from the state's largest dairy co-operative, the loss of much of its established clientele has very much threatened its viability. During the interview, the company's manager stated that the plant's closure was likely if any further business was lost within Tasmania.

In addition to the constraints imposed by markets which are actually declining, the possibilities for expansion within a large number of Tasmanian enterprises are limited simply by the small size and slow growth of the state market. As shown in Chapter 2, Tasmania's population of 442,100 persons represents only 2.8 per cent of the Australian total. More importantly, the local market is virtually stagnant, as the annual percentage increase in Tasmania's population has not been above 1 per cent since 1969. The limited

opportunity for expansion within the local market is critical, as 90 per cent of indigenous and 55 per cent of non-locally owned enterprises are largely dependent upon sales within the state (see Figure 3.15). The level of exports from Tasmania's indigenous manufacturers is extremely low, especially within non-resource based industries. Among non-locally owned enterprises, most laggard segments are tied to the state market as their parent company operates similar establishments in most mainland capital cities. The small size of the Tasmanian market has, in some instances, sheltered local producers from larger mainland manufacturers which have not marketed their products aggressively within the state. However, it has also encouraged the development of a small-scale, inefficient indigenous manufacturing sector which is generally ill-equipped to compete against external producers which do in fact bid for a controlling share of the Tasmanian market.

Another form of demand constraint influencing the growth potential of local enterprises involves market restrictions imposed by governments outside Tasmania. Within Australia, such restrictions have historically taken the form of state preference purchasing schemes for both public and private sector tenders. Under these schemes, state governments have effectively subsidised local manufacturers by awarding them contracts in instances where external producers have actually submitted lower bids. It might be assumed that state preference purchasing schemes are potentially more detrimental to manufacturers in Tasmania than to those in other states, particularly Victoria and New South Wales. Clearly, Tasmanian manufacturers have more to lose by not being awarded tenders in Melbourne than do Melbourne firms not being awarded much smaller and less frequent contracts in Hobart. In practice, however, the system of preference purchasing has probably been to the benefit of the majority of Tasmanian manufacturers. Discussions with local management suggested that the removal of preference schemes on the mainland would do little to alter the frequency with which local firms would submit tenders interstate. In addition, many managers of indigenous firms, particularly within heavy engineering and fabricated metals industries, felt that preference purchasing by the Tasmanian government did in fact play an important role in maintaining their viability as manufacturers.

In addition to the direct market restrictions imposed by state governments, the foreign trade policies of the Australian federal government may indirectly influence the potential for growth among Tasmanian manufacturers by altering their competitive position against foreign producers within the domestic market. Perhaps the most dramatic example of this took place in 1973 when the federal government reduced tariffs on textile imports by 25 per cent. As demonstrated in Chapter 3, the tariff reductions and other economic changes (eg. fluctuating wage levels and exchange rates) led to a massive restructuring within the domestic textile industry, resulting in significant employment loss within centres such as Launceston. Although tariff reductions were not as dramatic between 1980 and 1985, the domestic market conditions for several Tasmanian industries were affected by changes to the federal government's trade policies. Most relevant were developments of trade links between Australia and New Zealand, and changes affecting foreign trade within the automotive industry. In 1983, the Closer Economic Relations trade agreement (CER) was established between Australia and New Zealand, in order to encourage trade and the efficient allocation of resources between the two countries. The objectives of the agreement are gradually to eliminate trade restrictions on virtually all goods, effectively integrating segments of the two economies. In its first few years of operation, the influence of CER upon trans-Tasman trade remained unclear, as neither the Australian or New Zealand government established a central authority to monitor CER's impact upon trade relations (Financial Review, 16 April, 1985). Rather, the program's assessment was left to individual industries within the two countries. Under such conditions, allegations of unfair trade practices became routine occurrences, and the corporate support upon which CER depended gradually weakened.

During thesis interviews, managers of each of Tasmania's four major vegetable processing operations indicated that CER has adversely affected their volume of sales within the domestic market, as New Zealand manufacturers were far more efficient producers, benefited from the continuation of New Zealand performance-based export incentives, and had gained increasing support from Australia's few powerful supermarket retailers. For example, in 1985 the New Zealand frozen food processor Wattie Pict



launched a massive \$1 million marketing campaign on the Australian mainland for its range of frozen green vegetables. Subsidised heavily by a New Zealand government export marketing development grant, Wattie Pict increased substantially its Australian market position as a favourable exchange rate encouraged Australian retailers to purchase the company's products. As a partial result of the New Zealand firm's success, Tasmania's vegetable processors were each forced to cut production and maintain high levels of finished stock which they were unable to sell. In particular, McCain's processing facility in Smithton was forced to reduce its contract tonnage for green peas by 30 per cent the following year, while reducing its peak-season manufacturing workforce by 70 persons.

As part of the federal Labor government's restructuring of the motor vehicle industry, local manufacturers which increase their export performance have, since 1982, been allowed to import automotive componentry at lower rates of duty. Under this Export Facilitation Credit Scheme, the local content of Australian-made vehicles reduced steadily over the next few years (The Australian, 30 October, 1985). The rapid changes within the competitive environment of the domestic automotive components industry led to a number of local adjustments. Among these were Repco's decision to divest the majority of its component-based divisions, including its bearing facility in Launceston (Repco, 1985; and see section 5.1.1). As Australia's six car manufacturers scrambled to reduce the number of models produced, very little effort was devoted toward communication with domestic component manufacturers. In a climate of uncertainty, component manufacturers including Repco were unable to generate design and production strategies for original equipment components within the domestic market.

Finally, the market restrictions imposed upon Australian manufacturers from foreign sources also influence the potential for growth among a number of industries based within Tasmania. Market restrictions can take a number of direct forms such as the imposition of tariffs and quotas, or indirect forms including producer subsidies granted to foreign manufacturers, and production ceilings set by international regulatory agencies. Tasmanian manufacturers most affected by such restrictions operate within textiles, meat

processing, and pharmaceutical industries. For example, growth within Tasmania's textile industry has been limited, in part, by tariffs and quotas set by foreign governments, particularly the US and Japan. However, since a reduction in US tariffs on various textiles took place in 1982, two non-locally owned Tasmanian manufacturers have developed additional product lines, and marketed them successfully within the American market. Several forms of restrictions have influenced Tasmania's meat export industry, including quotas set by foreign governments and the dumping of subsidised meat products by the EEC. The influence of the EEC has been especially negative since 1982 when increased pressure was applied upon Canada, Korea and Japan to take up the Community's surplus production. In 1985, the Pacific basin accounted for over one-third of Australia's beef exports (The Australian, 10 September, 1985). As demonstrated in Chapter 5 (see section 5.1.1), both the production ceilings set by the International Narcotics Control Board, and quota restrictions by foreign governments, are largely responsible for establishing the rate of growth within Tasmania's poppy and pharmaceutical industries.

Thus, several different forms of demand constraints are influencing the growth of Tasmania's manufacturing economy. Given that the largest number of both indigenous and non-locally owned manufacturers are oriented primarily toward the Tasmanian market, the constraints related to the limited population size and slow growth of the local region are most critical.

### **6.1.3 Financial Constraints**

Of the constraints to capital growth and accumulation, the inability of firms to finance investment is perhaps most important. Assuming that management has both the desire and ability to expand within a growing market, the factor ultimately influencing the success of a development program is the firm's ability to organise the required finance. An enormous amount of literature on business finance has emphasised the differences in financial constraints between small and large firms (for example, see Renfrew, et al 1985; and Copeland, 1983). Survey evidence from the Tasmanian manufacturing sector suggests

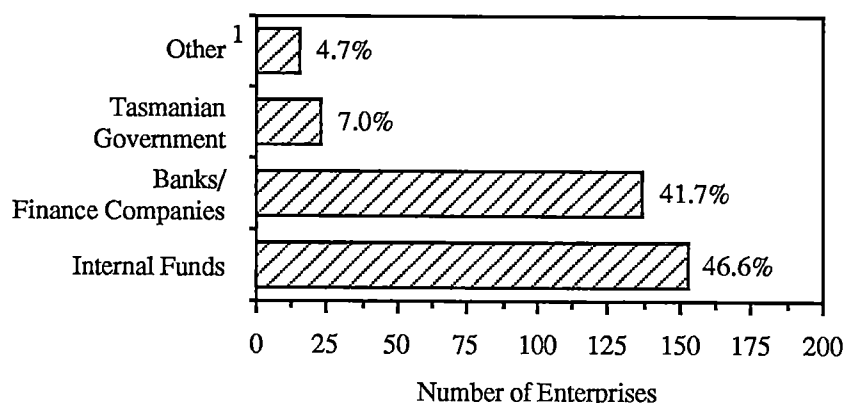
that, in particular, financial constraints vary according to both the size and ownership of enterprises.

Discussions with managers of indigenous enterprises, the majority of which are small to medium-sized operations, highlighted a number of key constraints. First, managers of many businesses in a position to undertake investment know little about the types of financing available to them. In particular, most owner-managers making key investment decisions have little or no formal training in areas of financial management. Knowledge of finance sources is especially limited in terms of government agencies and programs which are available to private enterprise. They include Commonwealth sources such as the Australian Industry Development Corporation, Export Finance and Insurance Corporation, Management and Investment Company Program, and the Commonwealth Development Bank. While most indigenous firms were aware that local state-based development programs were initiated by the Tasmanian Development Authority, only a small percentage of managers interviewed have ever approached the Authority for information or assistance.

Given the dominance of small indigenous firms within the state's manufacturing economy, it is not surprising that the largest number of these enterprises (46.6 per cent) relied upon internal funds as the largest single source of finance for all investments between 1980 and 1985 (Figure 6.2). A further 41.7 per cent of indigenous firms relied primarily upon institutional sources of finance including banks and finance companies, while a much smaller group of enterprises utilised other sources including the Tasmanian Development Authority. Power networks involving a reliance upon trade customers or suppliers for finance capital are essentially non-existent within Tasmania. This is in fact not surprising given that only a few indigenous firms are largely dependent upon larger business organisations through subcontract and franchise arrangements (see Chapter 4). The reliance of indigenous enterprises upon internal funding of investments reflects the reluctance of many firms to obtain finance from outside sources, and the inability of others to provide the capital necessary to secure institutional loans. Enterprises reliant solely upon internal funds for investment are clearly limited by their cash flows and levels of

retained profits. Moreover, survey evidence strongly suggests that a large number of indigenous firms make poor use of their working capital, and are slow to collect outstanding debts owed to the business.

**Figure 6.2: Primary Source of Finance for Indigenous Manufacturing Enterprises, 1980-1985**



<sup>1</sup> Includes assurance societies, new partners in the business and personal loans from persons not associated with the Tasmanian operation.

Source: Tasmanian Manufacturing Survey, 1986

For example, a small Devonport firm manufacturing sports uniforms and school jumpers maintains approximately one-quarter of its net assets in idle stock, as the few mainland fabric mills the company is forced to deal with will sell only in bulk quantities. The manager of the firm stated that while trade was good, expansion was virtually impossible since the enterprise presently operates from rented premises and has little collateral available to secure a bank loan.

The state's 85 non-locally owned enterprises have very different financial constraints. As outlined in Chapter 5, all but a handful of these operations are dependent upon their parent companies for the majority of finance capital (see Figure 5.5). Virtually all non-locally owned enterprises operate as part of large business organisations which have access to financial resources adequate to expand their operations in Tasmania. However, the financial constraints influencing Tasmanian plants are associated largely with the degree of intra-organisational competition for operating resources between segments of the parent company. In this respect, intermediate segments are more likely to

have greater access to the financial resources of the parent firm than are laggard segments which contribute less to the overall profitability of the organisation.

#### **6.1.4 Locational Constraints**

The final of the four dominant types of constraints influencing the growth of Tasmanian enterprises are those attributable largely to the conditions of the local capitalist environment within which firms operate. As argued in Chapter 1, social relations of production vary over both time and space, as well as between individual business enterprises. The way in which firms organise their activities over space is influenced by a host of factors such as market character, access to resources, transport and labour markets, the support available from government, and the nature of industry competition. These and other factors vary between locations, representing different sorts of opportunities to different firms. The growth of established operations of business enterprises is certainly influenced by many of these same factors. Within Tasmania's manufacturing sector, several locational factors are particularly relevant as constraints to enterprise growth within the current capitalist environment.

Perhaps the most important and certainly most visible locational constraint is the limited availability of resources within the state's forest products, fishing, and meat processing industries. Within the state's forest products industry, evidence demonstrates that sawlog cut from Crown forests has been above sustainable yields since the early 1950s (Walker, 1981). Between 1980 and 1985, the Tasmanian Forestry Commission reduced significantly its allocation of Crown sawlogs, replacing the system of Exclusive Forest Permits with a more stringent system of annual sawlog allocation. In addition to the reduction of sawlog allocations by the Forestry Commission, the availability of sawlogs has also been threatened by APPM's and ANM's premature utilisation of potential sawlogs within their pulpwood concession areas (Kemp, 1981). As the availability of sawlogs from Crown forests has declined, greater pressure has been placed upon the exploitation of private timber resources. The long-term prospect for private resources is questionable, however, as less than one-third of the private forests cut is subsequently

regenerated. In a bid to secure its sawlog resources, APPM's Forest Products division has, since the late 1970s, bought out a large number of smaller indigenous sawmills operating in its Wesley Vale concession. Similar activity has occurred elsewhere within the industry, with the usual result being the closure of the acquired mill, reductions in the workforce, and the centralisation of production capital.

In addition to a decline of sawlog resources, fears have arisen concerning the availability of minor species such as sassafras, myrtle, and blackwood used extensively in Tasmania's expanding timber furniture industry. At present, these species are taken primarily from private land, and very little information exists on whether the statewide resource is being managed properly. Although the long-term growth of Tasmania's furniture industry depends heavily upon the availability of these species, interviews undertaken with owner-managers of several furniture enterprises demonstrates that there exists a general ignorance of the problem within the industry itself. Most firms manufacturing wooden furniture are small, locally owned, second or third generation operations. The owner-managers running these enterprises are typically highly skilled craftsmen. However, their historical dependence upon wholesalers for timber resources has meant that most know very little about either where the resource actually comes from or how much of it is available.

Within the state's fish processing industry, declining stocks have already resulted in a number of major rationalisations, and will dictate the nature of growth within several segments of the industry for many years to come. In particular, stocks of orange roughy, abalone, rock lobster and scallops have fallen rapidly since the late 1970s as catches have been well above sustainable yields. In 1984, the state agency responsible for fisheries management, the Tasmanian Fisheries Development Authority (TFDA), declared that the scallop catch that year was the best ever, and that the industry would 'continue to grow rapidly' (Australian Fisheries, 1983, p. 44). Within a year, it was apparent that the state's scallop industry was in severe trouble, due both to over-fishing and to the devastating effects of scallop dredging. In 1985, the TFDA stopped granting new licences and closed several major scallop beds off north east Tasmania. In that same year the TFDA itself was

dismantled as it was clearly unable to manage effectively the state's fisheries resource. Similar problems have occurred within Tasmania's abalone industry. Currently, nearly all abalone caught in Tasmanian waters is sold in Japan for approximately \$15 per kilogram in the shell. As abalone diving has become an increasingly lucrative occupation, the price of licences sold between divers has risen to well over \$900,000. Between the late 1960s when abalone was first caught commercially and the early 1980s, little pressure was put on divers to stay under catch levels recommended by the state government. As a result, abalone stocks were depleted and the industry was forced to introduce lower catch levels. Between 1980 and 1988, catch limits per diver were reduced by 56 per cent to just over 16 tonnes annually. While the lower catch levels still enable most of the state's 125 commercial divers to reap substantial profits, new divers who have taken out loans to finance the purchase of their license are in a much less favourable position.

Since the late 1970s, growth within Tasmania's meat processing industry has also been restricted by declining stock levels. In the early 1970s, the industry reached its peak with four major export processing operations slaughtering nearly 1.4 million sheep and 350,000 head of cattle annually (Tasmanian Year Book, 1978). By 1980 Tasmania's meat processing industry accounted for nearly 70 per cent of the state's agricultural production. Since then stock levels have fallen by approximately one-third. Principal reasons for the decrease in stock include competing land uses for vegetables, poppies and wool, an increase in live sheep and cattle exports, and severe drought conditions experienced between 1981 and 1983. Under the Tasmanian Freight Equalisation Scheme, farmers shipping livestock to Melbourne for slaughter receive \$2.10 per head of sheep and \$12.00 per head of cattle (Department of Transport, 1985). Between 1981 and 1983, in particular, abattoirs in Melbourne were paying prices for Tasmanian livestock which were higher than those offered locally. In 1986, the continuation of declining stock levels forced Tasmania's largest meat processor, Richardson's Meat Industries, into receivership. As a result, nearly 300 jobs were lost. The future of the state's three remaining export processors remains in doubt, as their manufacturing facilities are operating well under capacity. The inefficient use of capital resources has reduced the

competitiveness of Tasmanian producers, especially against smaller slaughterhouses on the mainland selling within the domestic market.

In addition to locational constraints associated with a limited availability of material resources, expansion within a large number of Tasmanian manufacturing enterprises is constrained by the difficulties involved in selling to markets outside the state. Although the influence of Tasmania's physical separation from mainland markets has perhaps been over-emphasised by some commentators, there is little doubt that many of the state's manufacturers are disadvantaged compared to similar operations in Melbourne and Sydney. The great distances between Tasmania and major interstate markets means that most small to medium-sized indigenous firms must rely upon wholesale sales agents on the mainland. Few indigenous firms are able to generate sufficient output, or possess the managerial and financial resources required, to deal directly with large retailers outside Tasmania. The reliance upon wholesale agents in export markets reduces the ultimate control which local manufacturers possess over the marketing of their own products. While the responsibilities for key functions such as interstate market development are often granted to wholesalers on the mainland, managers in Tasmania are forced to spend a considerable portion of their time with administrative matters involved in shipping goods to the mainland.

Among many of Tasmania's non-locally owned enterprises, growth is limited by the implicit or explicit market constraints imposed by their parent companies. As demonstrated in Chapter 5, a large number of non-locally owned enterprises are allowed by their parent firm to sell only within Tasmania as similar plants operate within several other Australian states. Most enterprises influenced by such constraints are laggard operating segments following a strategy of Tasmanian market entry. Growth strategies adopted are thus limited to the opportunities presented within the state market. The 'default' market constraints imposed by parent companies are likely to change over time as both the number of plants within the group, and products manufactured at various locations, are altered. In addition, as parent companies acquire other firms, or are taken over themselves, the market constraints placed upon Tasmanian enterprises may change.



For example, a Devonport firm manufacturing fibreglass products was forced to abandon product sales to the mainland following its parent company's decision to sell the Tasmanian operation. Operating previously as the sole Australian subsidiary of the US building products company Ceilcote Limited, the Devonport plant marketed fibreglass products within each mainland state. In 1984, Ceilcote phased out its fibreglass activities worldwide. The Tasmanian enterprise was purchased by the Sydney-based construction group Transfield Limited. At the time of the purchase, Transfield's reinforced plastics division operated plants similar to Devonport in Perth, Melbourne, and Sydney. Interstate sales of fibreglass products from Devonport were subsequently discontinued. As a result, production workforce at the Devonport plant was cut by one-half, and two marketing executives were transferred to other locations within the Transfield group.

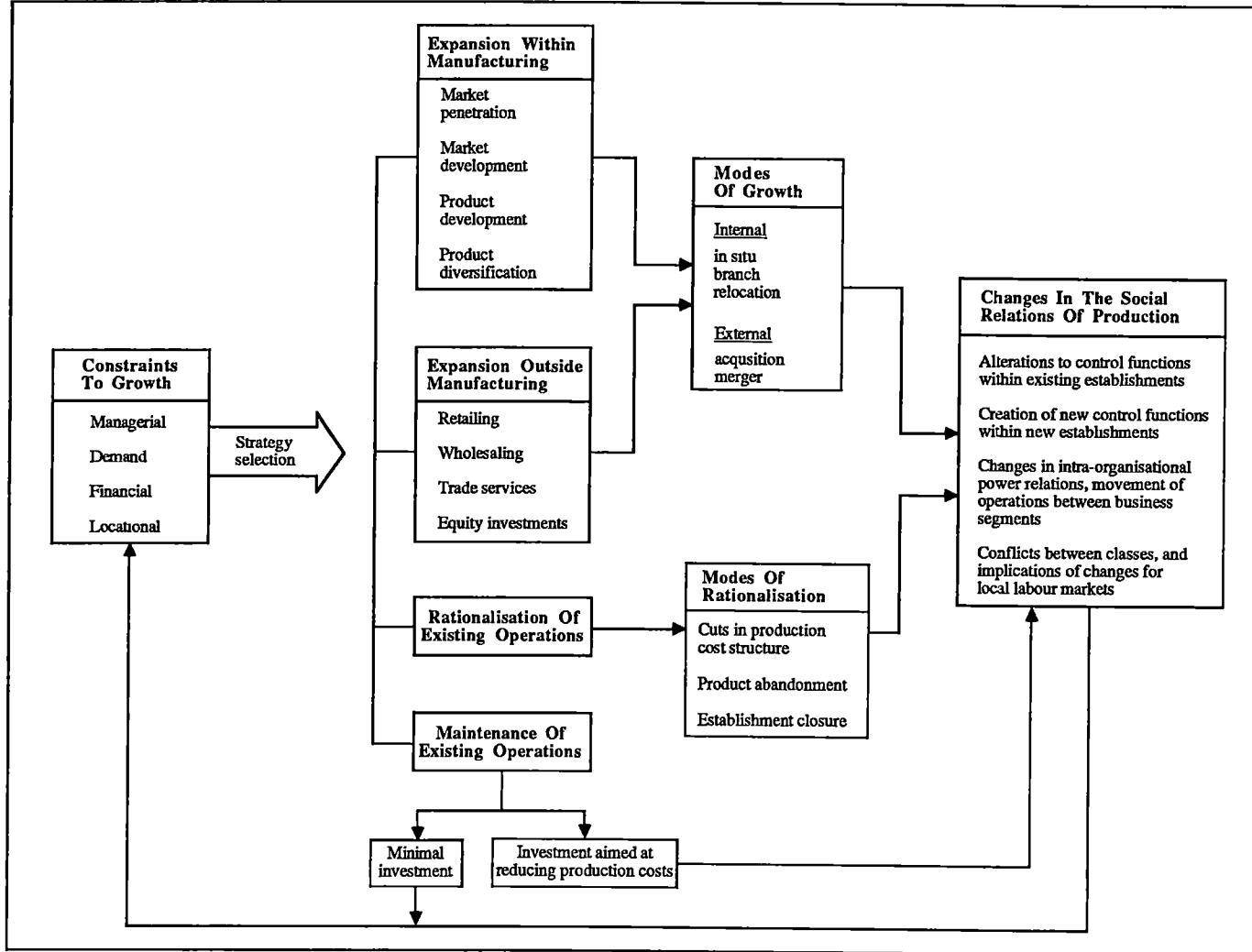
Given the constraints influencing the growth of Tasmanian manufacturing enterprises, the following section summarises the growth strategies adopted between 1980 and 1985. Discussion first outlines a conceptual model of corporate growth within the state's manufacturing economy. From this conceptualisation, the actual strategies being followed by enterprises are highlighted. Particular attention is given to the characteristics of enterprises following different strategies.

## **6.2 STRATEGIES OF GROWTH WITHIN THE STATE'S MANUFACTURING ECONOMY: 1980-1985**

### **6.2.1 Conceptualisation of Growth Strategies**

From the constraints to growth originating both within and external to business enterprises, managers adopt strategies which coincide with their objectives, as well as with managerial and physical resources. The particular nature of constraints operating within Tasmania's manufacturing economy suggests that four general strategies of growth and accumulation are available to management. Two of these involve the physical growth of the enterprise. In Figure 6.3 they are shown as expansion within and outside manufacturing. A third possible strategy involves the rationalisation of existing operations, and the fourth

Figure 6.3: Conceptualisation Of Growth Strategies Available to Tasmanian Manufacturing Enterprises



Source: Adapted from Håkanson, 1979

is simply to maintain the enterprise's existing operations.

### Expansion-Based Strategies

Management of enterprises expanding within manufacturing have a number of options available to them. These are expansion through market penetration, market development, product development, and product diversification (Håkanson, 1979 p. 127; Figure 6.3). Firms may choose either one or a combination of these as part of a strategy to develop their production base. Through a strategy of market penetration, firms expand by selling their manufactured products in new locations. New markets may be served from either existing production locations or from new plants established by the enterprise. In addition, new geographic markets may be entered following the acquisition of, or merger with, another company. Strategies of market development involve a firm's attempt to gain a larger share of its existing market. This is typically accomplished through the enterprise's existing plant structure. The success of market development strategies is dependent largely upon the ability of management in areas of marketing and advertising, as well as the potential for an increased market share given the demand constraints faced by the enterprise. Compared to other strategies of expansion within manufacturing, market development is often chosen since it involves less risk (eg. major investment in fixed capital) to the enterprise.

By comparison, strategies of product development and diversification generally represent greater risk to the firm, requiring at least moderate investment in fixed capital. Moreover, the short-term benefits of production-based strategies are often less than those realised from market-based strategies, since the introduction of new or improved products requires considerable time. Research by Steed (1971) and Healey (1981), however, demonstrates the importance of product changes to the long-term survival and growth of manufacturing enterprises. In particular, the introduction of new process and product technologies is vital within firms operating in highly competitive markets. As indicated in Chapter 5, product developments represent an important form of locational adjustment within multi-site firms, and may alter the power structures within organisations by

increasing or reducing the level of control functions maintained by branch managers. While product developments are likely to be accomplished through internal expansion of the enterprise, the diversification of manufactured products often involves external expansion through either merger or acquisition. External expansion is often undertaken as a means to acquire a level of expertise not currently held within the firm. Product diversification is often associated with a scarcity of material resources necessary to support growth of a firm's established product lines. By diversifying their existing product base, firms may increase the value of the final product, reducing the volume of raw materials required to generate a given value of sales. For example, local sawmillers presently selling rough sawn timber to manufacturers in Victoria may, in the future, diversify into areas such as furniture manufacture.

As an alternative to expansion within manufacturing, enterprises may adopt strategies of growth in areas such as retailing, wholesaling, trade services, and equity investment (Figure 6.3). Possible reasons for expanding in areas other than manufacturing are many and varied. Firms constrained by a lack of locally available raw materials may have little choice but to diversify out of resource-based production to ensure their survival. Other enterprises may choose to expand outside manufacturing as a means to supplement their production activities. This strategy is particularly attractive to smaller enterprises since expansion may be undertaken with only minimal investment. For example, a firm may establish a small retail outlet at the front of its factory, while other firms with under-utilised storage or transport facilities may supplement their production activities by expanding into wholesaling and distribution.

Expansion outside manufacturing is also likely among enterprises manufacturing products in markets characterised by a high level of demand constraint. For some enterprises in Tasmania, further growth of manufacturing is impossible without adopting a strategy of market penetration which usually requires movement into interstate markets. Rather than expand outside the state, manufacturers may diversify into non-production activities within their local region. In certain manufacturing industries such as fabricated metals, electrical goods and joinery, enterprises are often able to expand the level of trade

services offered to their customers. Such services include design, installation, maintenance and repair activities.

Equity investment in non-related companies is an option more commonly available to larger manufacturing enterprises which possess the ability to raise the required capital funds. While some firms may convert existing non-trading assets into equity finance, others may actually divest segments of their production activities in order to fund such investments. Equity investment is attractive to firms for a number of reasons. First, through equity investments firms are able to share in the profits of non-related companies without having to carry the responsibilities associated with direct management. Second, by acquiring partial ownership of non-related companies, investors are able to increase their level of power over other business organisations. In this respect, firms may increase their influence over trade customers or suppliers, as well as firms providing competition within the marketplace. Equity investments may also be undertaken as part of a long-term strategy culminating in the eventual takeover of another company.

#### Strategies of Rationalisation and Survival

In contrast to enterprises adopting strategies of growth either within or outside manufacturing, the constraints to growth may be such that expansion itself is not possible. In this case, firms will attempt either to maintain their existing operations or to reduce the level of activities currently being carried out (Figure 6.3). Depending upon the severity of constraints influencing an enterprise, rationalisation may involve only one segment of a firm's operation or the entire operation itself. As part of a rationalisation strategy, firms are likely to close establishments, abandon particular products, or undertake significant reductions in processing, distribution, storage and maintenance activities. Central to most rationalisation within manufacturing is an immediate reduction of the firm's production cost structure, particularly in terms of the amount of labour required to produce a given rate of surplus-value.

The lowering of production costs is also a primary objective among many enterprises working simply to maintain their existing operations. In contrast to firms in which cost

reductions are focused upon reduced levels of business activity in the short-term, firms seeking to maintain their level of physical output are often able to plan and implement cost reduction programs over a much longer period. Since these firms are working to maintain the level of business activity, they are more likely to be able to raise the financial capital required for critical investment in improved process technology. However, not all manufacturing enterprises seeking to maintain their current level of business activity will undertake major cost-saving investments. Among many small to medium-sized firms, in particular, the level of existing production can be supported through minimal investment. As long as the firm is able to maintain its current market share, those in control of the operation are unlikely to undertake investments involving significant risks.

#### Changes in the Social Relations of Production

As segments within the business organisation are continually subjected to various strategies of expansion or decline, the social relations of production within the firm may be altered. Within multi-site firms the growth or rationalisation of individual operating units may lead to a subsequent shift in the balance of control functions and power held by managers of various plants within the group. Similarly, the establishment of new branch locations will lead to the creation of new control functions. Within single-site enterprises, the strategies adopted may alter the relations between capital and labour, as capital becomes either more or less directly involved in the accumulation process. As the activities undertaken by enterprises change over time, changes in the social relations of production will ultimately influence the constraints facing capital throughout subsequent rounds of new investment (Figure 6.3).

Following on from the constraints to growth and strategies available to manufacturing firms, the next section details the actual growth strategies adopted by Tasmanian enterprises between 1980 and 1985. Discussion highlights the different strategies adopted by indigenous and non-locally owned enterprises. Survey evidence demonstrates that most manufacturing firms have adopted more than one strategy, as both the constraints to growth and opportunities for expansion vary between individual

operating segments. It is thus inappropriate to classify individual firms on the basis of a single growth strategy. It is possible, however, to analyse enterprises in terms of the dominant and minor strategies which they are following. Within virtually all enterprises following multiple strategies, the long-term viability of the firm is dependent largely upon a single operating segment to which the majority of financial and managerial resources are committed. The 'dominant' strategy of each manufacturing enterprise is therefore defined on this basis. As well as the dominant strategy being followed by enterprises, discussion highlights the nature of other strategies adopted by firms which are somewhat less critical to the performance and long-term development of the operation.

A number of general conclusions can be drawn from the survey data. First, among indigenous firms only a small number have committed a major percentage of their resources to expansion-based strategies since 1980. Rather, most expansion-based strategies being followed have required only minimal capital investment, and are oriented toward the development of existing facilities within the firm. Secondly, much of the expansion undertaken by indigenous capital has been in areas outside manufacturing. Among non-locally owned enterprises serving the Tasmanian market, most have either rationalised their operation or attempted to maintain existing levels of activity with only minimal capital investment. A higher percentage of non-locally owned enterprises oriented toward markets outside the state have expanded the scope of their production operations, although a considerable portion of investment within Tasmania has focused upon the reduction of labour costs rather than increased business activity.

#### **6.2.2 Strategies Adopted By Indigenous Enterprises Between 1980-1985**

Discussion of the growth strategies adopted by indigenous enterprises between 1980 and 1985 is based solely upon an intensive investigation of the 81 locally owned operations included in the manufacturing survey. Of primary concern is the identification of processes relevant to these enterprises. Although the 81 firms represent a sample of only 22 per cent of all indigenous manufacturers (see Table 2.4), the firms included in the survey account for the majority of employment and output within the state's indigenous

manufacturing sector. Processes are thus identified for those enterprises most likely to have the greatest influence over the growth or decline of indigenous manufacturing. In the following paragraphs, reference is often made to small, medium and large firms. As defined in section 3.4, small firms employ fewer than 26 persons, medium-sized firms employ between 26 and 99 persons, and large firms employ 100 or more workers.

#### Expansion Within Manufacturing

Between 1980 and 1985, only 29 (36 per cent) of the 81 indigenous enterprises included in the manufacturing survey adopted dominant strategies which were expansion-based (Table 6.1). Expansion within manufacturing represented the dominant strategy in 18 of these 29 firms. Of these 18 enterprises, seven focused their activities upon the development of existing product lines, six expanded into new geographic markets, three worked primarily to increase further their share of existing markets, and two diversified into new product areas.

#### Development of Existing Product Lines

The seven enterprises developing their existing product lines manufacture a wide range of items including table wines, food products, office furniture, moulded plastics, and industrial footwear. Each of these is a medium to large-sized operation which has injected considerable funds into product developments. Six of these firms operate in local product markets dominated by large mainland-based manufacturers while one, a manufacturer of industrial footwear, sells the majority of its manufactured products outside Tasmania. Given the competitive nature of the markets in which they are operating, these firms must continually improve or expand their range of manufactured products. Within all seven firms, product developments have been undertaken at existing facilities operated by the enterprise.

Typical of the six firms operating in the state market is a Hobart manufacturer of meat pies and pastry which has operated independently within Tasmania since 1949. Constant market pressure by the two largest mainland manufacturers, Herbert Adams and



**Table 6.1: Dominant and Minor Growth Strategies Adopted by Indigenous Manufacturing Enterprises, 1980-1985**

	Expansion Within Manufacturing	Expansion Outside Manufacturing	Rationalisation of Existing Operations	Maintenance of Existing Operations	Total
<b>Dominant Strategy</b>					
Enterprises					
No.	18	11	12	40	81
%	22.2	13.6	14.8	49.3	100
<b>Minor Strategy</b>					
Enterprises					
No.	26	18	2	11	57
%	32.1	22.2	2.4	13.6	-
<b>Total</b>					
Enterprises					
No.	44	29	14	51	138
%	54.3	35.8	17.2	62.9	-

Source: Tasmanian Manufacturing Survey, 1986

The Adelaide Steamship Company, has forced the Tasmanian company continually to improve its products. The focus upon product quality is especially critical as the Tasmanian firm is unable to compete against the major producers in terms of advertising and the volume of product marketed through the state's two largest retailers, Coles-Myer and Woolworths. Instead, the Tasmanian firm has captured a major share of the state's corner store and take-away food markets in which the major producers are less competitive.

### Expansion Into New Markets

The six enterprises expanding into new markets include four which have entered into new regional markets within Tasmania, a manufacturer of mining vehicles which expanded into several mainland markets, and a major Hobart publishing and printing company which established a manufacturing facility overseas. The four enterprises adopting a strategy of multi-regional expansion within Tasmania are small to medium-sized firms which, after establishing themselves in their local region, have attempted to increase sales of manufactured products by expanding in at least one of the state's other two regional markets. They include a Hobart-based fruit juice company, a Devonport joinery firm, and two Launceston companies manufacturing marine electronics and cellulose fibre insulation respectively. The firms manufacturing joinery and insulation expanded into the state's southern market by establishing a branch production facility in Hobart. The marine electronics firm also entered the Hobart market, but chose to increase its production facilities in Launceston and rely upon retailers in Hobart for product sales. The Hobart fruit juice company expanded into the north and north west regions of the state after taking-over the Tasmanian operations of a non-locally owned manufacturer in Launceston. The Devonport manufacturer of mining vehicles has expanded its product sales into a number of mainland markets since 1980, selling directly to mining companies requiring underground vehicles. The Hobart publishing and printing company, Davies Brothers Ltd, established a joint venture colour sign operation in Singapore as part of a strategy which is expected to lead to further factory expansions outside Australia.

### Development of Existing Markets and Product Diversification

Of the five remaining indigenous firms which have adopted a dominant strategy of expansion in manufacturing, three have put considerable effort into developing further the existing geographic markets in which they operate, and two have diversified into new areas of product manufacture. Only one of the three firms focusing upon market development, a cement manufacturer based in the north west region, sells primarily outside Tasmania. Employing over 400 persons in Tasmania, the company has become more aggressive in bidding against major cement producers on the mainland for inter-state contracts. The strategy has paid off as the firm was awarded several large contracts in Melbourne between 1980 and 1985. Prior to 1980, the company's marketing philosophy was to sell primarily within market niches not served by the major national producers, Blue Circle Southern Cement Ltd, Pioneer Concrete Services Ltd, and Boral Ltd. Between 1980 and 1985 the Tasmanian company increased its share of the national cement market from 6 to 10 per cent. The other two enterprises focusing primarily upon market development are a Launceston timber company which has switched its main market from Victoria to Tasmanian retailers, and a Launceston manufacturer of shopfittings which expanded its sales within the Hobart market.

The fact that only two firms have adopted a dominant strategy of product diversification highlights the reliance of indigenous firms upon existing products. One of the two manufacturers adopting a strategy of diversification is a Launceston firm manufacturing domestic chemicals for the Tasmanian market. In 1982 the company purchased a factory, producing plastic bottles, owned by the mainland-based company ACI Industries Ltd. The purchase was arranged when ACI announced its intention to close the facility. The acquisition was important to the local chemical manufacturer since it relied upon the plant for its plastic packaging requirements. The continuation of the plastics operation was also important to the Tasmanian government which, at the time, was attempting to develop the state's packaging industry. Consequently, the Tasmanian Development Authority provided a considerable portion of the finance needed to complete

the purchase. The other enterprise diversifying into new products is a medium-sized Hobart marine engineering company which designed and now builds a range of domestic wood heaters. Expansion of the firm's established marine products such as winches and steering gear is constrained by both the limited local market and difficulties involved in marketing these products outside Tasmania. The decision to diversify into wood heaters was made on the basis that it would utilise the skills available within the enterprise, and allow the firm to sell the product locally in what appeared to be a growing market. However, the enterprise's commitment to the new product has yet to produce substantial profits, as the growing local market has been exploited by a number of larger mainland manufacturers selling through local retail outlets.

#### Expansion Within Manufacturing as a Minor Strategy

In addition to the 18 indigenous enterprises which adopted a dominant strategy of expansion within manufacturing, a further 26 locally owned enterprises undertook minor expansion of their manufacturing operations between 1980 and 1985 (Table 6.1). Not surprisingly, these expansions were limited to the development of either existing markets or products, requiring only minimal capital investment from most firms. In total, therefore, only 44 (54.3 per cent) of the 81 indigenous manufacturing enterprises included in the survey undertook some form of expansion within manufacturing over the five year period.

#### Expansion Outside Manufacturing

Between 1980 and 1985, a total of 29 indigenous enterprises undertook expansion outside manufacturing (Table 6.1). Expansion outside production represented the dominant strategy within 11 of these 29 firms. Of these 11 firms nine focused their expansion upon retailing and two centred expansion upon equity investments.

The nine firms undertaking significant expansion within retailing are three timber companies, three plant bakeries, two furniture manufacturers and a clothing & textile company. The three timber companies are each large manager-operated, family-owned

firms which have been established in Tasmania for more than 50 years. They are Risby Forest Industries, B.G. Clennett, and Kemp & Denning Ltd (see Figure 3.12). Between 1980 and 1985, each of these companies constructed a large retail establishment selling timber and hardware to both the trade and the home handyman markets. Within each firm, diversification outside of forest-based activities has been encouraged by an increasing scarcity of timber resources, ongoing difficulties in transporting and marketing timber outside the state, and severe fluctuations in timber demand experienced within the Australian building market. For Kemp & Denning, the expansion into timber retailing was a continuation of a diversification strategy first adopted in the early 1970s. As a publicly listed company, Kemp & Denning has also diversified into the manufacture of clay bricks, joinery and shopfittings, and automotive retailing. By comparison, B.G. Clennett's hardware and timber facility was only its second attempt at diversification outside timber production, its first retail outlet in 1979 having been established. Risby's retail centre was established in 1984 following the company's decision to relocate and expand a smaller existing facility located in inner Hobart.

Three plant bakeries, two in Hobart and one in Burnie, have also diversified into retail activities. All three have established hot bread shops in their local region since 1980. In particular, one company has set up four small retail outlets in the Hobart area. Locating small stores in Hobart's largest pedestrian shopping areas, the firm has captured a major share of the hot bread market which has only recently been developed within Tasmania. During the interview, the company's manager indicated that the success of the operation has led them to investigate the possibility of franchising additional outlets in other regional centres within Tasmania. The other two bakeries have expanded into retailing on a much smaller scale, operating only one sales outlet each. The Burnie plant bakery set up its first retail outlet, in the city centre, in 1983. The second bakery, located in Huonville 45 kilometres south of Hobart, constructed a combined warehouse/retail facility just north of the Hobart city centre in 1984. The remaining firms undertaking major retail developments include a Launceston furniture company which opened a showroom in Hobart, a Hobart furniture company which opened a retail shop adjacent to its small factory, and a

Launceston manufacturer of woollen garments which expanded into retailing both at its Launceston factory and in Hobart. Diversification was undertaken by the garment manufacturer after the company was taken over by a family which transferred its business interests from Victoria to Launceston.

In addition to the nine enterprises expanding primarily within retailing, two indigenous firms have focused their expansion in areas of equity investment. They are a Hobart firm engaged primarily in the processing of animal hides and skins, and a Launceston flour miller and stock feed merchant. As indicated in Chapter 4, expansion within the firm processing hides and skins is constrained by a shortage of animal stock. Further expansion within manufacturing could only occur in areas which would increase the value-added component of the semi-processed products currently being produced. However, as indicated by the company's owner-manager, such expansion is unlikely given the limited expertise available within the firm. Expansion since 1980 has taken the form of increased equity shareholdings in Tasmania's two largest pastoral companies, Roberts Ltd and Webster Ltd. Since 1980, the Launceston flour miller has raised considerably its shareholding in two of the state's three largest plant bakeries, the largest flour miller in southern Tasmania, Gibson's Ltd, and a Devonport manufacturer of industrial flour for the paper industry. By obtaining shares in these businesses, the Launceston company has increased its power over both its major customers and competition within Tasmania.

#### Expansion Outside Manufacturing as a Minor Strategy

As well as the 11 enterprises focusing the majority of their expansion in areas outside manufacturing, an additional 18 enterprises have adopted minor strategies of growth outside production-based activities. The largest number of these firms (N=7) have increased the level of business activity in areas of trade services such as maintenance, storage, installation, and design engineering. Two of these enterprises, the manufacturer of underground mining vehicles and an engineering firm, have expanded their trade service activities as part of a more general strategy of diversification within the local market.

Having established themselves as local market leaders within their particular area of manufacture, the two companies expanded into trade services in order to generate activity during periods when the firm was manufacturing below capacity. For each of the five remaining enterprises expanding within trade services, however, expansion outside manufacturing has been forced by stagnant or declining markets for the firm's manufactured products. Manufacturing for the local market, these companies produce goods which include automotive batteries, protective pipe coatings for the mining industry, electronic scoreboards, block and party ice, and burglar alarm systems. All five firms are small owner-managed operations with limited capital resources. Given the severe demand constraints influencing growth within manufacturing, and the inability of most firms to compete against large inter-state producers, these firms have expanded within trade services as part of a survival strategy.

Six indigenous enterprises have undertaken minor expansion within wholesaling. The owner-manager of one of these firms, a Hobart manufacturer of automotive trailers, indicated that the barriers to operating a medium-sized manufacturing operation convinced him to scale down production activities and concentrate on wholesaling. The main competition of the company, which employs approximately 35 persons, is from smaller and possibly informal local operators, many of which operate under the payroll tax exemption limit (see section 6.1.1), and avoid sales tax by selling manufactured products on a cash only basis. The strategy adopted by the firm in 1985 was eventually to cease manufacturing altogether, reducing its workforce by 20 persons.

The five remaining enterprises undertaking minor expansion within wholesaling include two manager-operated, and three owner-managed medium-sized companies. Each firm sells exclusively within the Tasmanian market, manufacturing products including fruit juices, domestic chemicals, food products, and brassware. The local market for each of these goods is dominated by inter-state manufacturers, with locally manufactured products accounting for only a small share of all product sales. As an alternative to competing directly against mainland producers, the strategy adopted by these five local enterprises is to wholesale their competitors' products within Tasmania. This arrangement benefits both

the mainland producers which avoid the cost of having to establish their own distribution facility within Tasmania, and the indigenous manufacturers which receive a moderate return from their activities as wholesale agents. The share of the market controlled by the five indigenous firms is small enough not to influence significantly the level of profits gained by the mainland producers within the Tasmanian market. Given their importance as wholesale distributors, the Tasmanian companies are unlikely to be forced out of the market by their inter-state rivals.

The final seven enterprises undertaking minor expansion outside manufacturing comprise four medium-sized owner-managed firms which have built small retail showrooms adjacent to their factory location, and three large manager-operated companies which diverted a portion of their expansion resources into equity shareholdings and property investments.

#### Rationalisation of Existing Operations

Between 1980 and 1985, 14 of the 81 indigenous enterprises surveyed rationalised segments of their existing operation. For 12 of these firms, rationalisation was the dominant strategy adopted over the five year period. Ten of the 12 companies rationalised their operation by closing at least one establishment within Tasmania, while the remaining two undertook substantial restructuring programs which resulted in a reduction of manufactured output within several of their production segments.

#### Establishment Closure

Of the 10 companies closing branch establishments between 1980 and 1985, the largest number (N=6) did so because of poor trading conditions within the Tasmanian market. These operations are small to medium-sized owner-managed firms manufacturing metal-based products such as heating and air conditioning systems, shopfittings, vehicle trailers, electroplating, and custom automotive suspensions. The firms manufacturing vehicle trailers and shopfittings each closed a retail establishment, and the four remaining firms closed small branch manufacturing facilities. The constraints to growth vary



considerably among these six enterprises. The manufacturers of vehicle trailers, shopfittings, and automotive suspension systems are constrained largely by the intense competition provided by larger manufacturers located either in Tasmania or inter-state. By comparison, the enterprises manufacturing heating/air conditioning units, and electroplating are constrained primarily by a static or declining local market for their products.

Three indigenous timber companies headquartered in the north of the state also closed establishments, although for very different reasons. First, a sawmill formerly owned by a Victorian company sold a subsidiary sawmilling operation on Tasmania's east coast. The Victorian parent firm sold the subsidiary in 1983 to a Tasmanian company as part of a strategy aimed at selling-off local capital to provide funds for additional investment on the mainland. One year later, the Victorian parent sold the remaining segment of the operation, a timber mill in Launceston, to local management. While the mill is now in the hands of indigenous capital the loss of the east coast subsidiary, and particularly its timber allocations in state forests, has constrained further development due to a lack of material resources. A second sawmilling company to close an establishment is a family owned and operated enterprise located north east of Launceston. Between 1972 and 1982, the Launceston firm operated a branch production facility in south east Victoria. The Victorian mill, managed by the father of the Launceston chief executive, was closed following the father's decision to retire in 1983. A third company, Launceston's largest indigenous sawmilling group, closed two establishments between 1980 and 1985. In 1981 the firm was forced to close a sawmill in Devonport due to a declining availability of timber resources. One year later the company also closed a hardware and timber retail store in Burnie which had operated at a loss for several years. Although these two segments of the company were rationalised, the firm has expanded successfully in other areas. Its retail establishments in Launceston currently hold a majority market share of the Launceston home hardware market. In addition, since the interview was completed in 1985, the company has merged with a former Launceston production segment of APPM's forest products division to form the state's largest indigenous sawmilling group, Gunns

Kilndried Timber Industries Ltd.

The final indigenous company to rationalise segments of its operation by reducing the number of establishments is Clements Marshall Consolidated Ltd, a large publicly owned, manager-operated firm based in Devonport. Employing nearly 300 persons throughout Tasmania, the company is engaged in a wide range of activities including flour and stockfeed milling, fruit processing, timber processing, and transport and distribution. Until 1984 the firm also operated 13 rural merchandising outlets statewide, selling farm machinery, hardware and other rural supplies. Following a decision to rationalise less productive segments of its operation, Clements Marshall sold the 13 retail centres to a competitor located in Hobart. The sale of the 13 outlets decreased Clements Marshall's workforce by over 120 persons. The funds generated by the sale were subsequently used for other investments considered to be more profitable by the firm's board. Investments undertaken included the upgrading of the firm's timber production facilities, and the purchase of additional shares in a number of large companies operating in Tasmania including ENT Ltd, Richardson's Meat Industries Ltd, and Gunns Kilndried Timber Industries Ltd.

#### Reduced Employment Through Investment in Improved Process Technology

In addition to the 10 enterprises which rationalised segments of their operation through either the sale or closure of establishments, two firms rationalised production segments by investing heavily in process technology, reducing the labour-time required per unit of manufactured output. As part of their rationalisation programs, both firms also reduced the level of manufactured output within particular segments of their production operation. The first of these two firms, Cripps Bakery Pty Ltd, is the largest plant bakery in southern Tasmania. Between the mid-1940s and 1975, Cripps held a virtual monopoly over the sale of fresh bread in the Hobart area. In 1975, however, a second plant bakery, Wilson's Huon Bakery, was established 45 kilometres south of Hobart. As indicated in Chapter 4, Wilson's mounted an aggressive campaign to establish itself in the Hobart area. By 1983 Wilson's had captured 40 per cent of the southern bread market. In order to

survive, Cripps injected several million dollars into automated production equipment between the late-1970s and mid-1980s. As a result of both factory automation and the company's declining share of the Hobart bread market, Cripps reduced its workforce by more than 40 persons between 1980 and 1985. Over the period, production levels also declined as part of the company's rationalisation program.

The second firm both to rationalise segments of its production operation and invest heavily in process technology is the state's largest dairy co-operative, United Milk Tasmania Ltd (UMT). Following the amalgamation of three co-operatives to form UMT in 1981, the company moved quickly to rationalise its least efficient production segments, and divert capital resources into areas more likely to return higher profits. In particular, the co-operative's dependence upon butter production was lessened considerably as the number of butter factories was reduced from three to one. Investment focused upon the manufacture of speciality milk powders and whey protein concentrates for export markets. In contrast to the three previous independent co-operatives, UMT has put a much greater effort into marketing its products on the mainland and, more importantly, overseas. The majority of investment in production capital has resulted in lowering the total labour-time required in the manufacturing process. Between 1981 and 1985, UMT's factory workforce declined by more than 100 persons, nearly 50 per cent.

#### Rationalisation of Existing Operations as a Minor Strategy

Apart from the 12 indigenous enterprises which adopted a dominant strategy of rationalising their existing operation, only two firms are identified as having rationalised operating segments as part of a minor strategy between 1980 and 1985. First, a large owner-managed cement producer, Goliath Portland Cement Ltd, rationalised its segment producing fibreboard building sheets utilising asbestos cement. The company is presently researching the development of non-asbestos cement products for the building industry, a project supported financially by the Tasmanian Development Authority. Second, a family owned fishing company in Devonport rationalised a major export segment of its operation following quota restrictions placed upon orange roughy caught in Bass Strait. Having

invested more than \$1 million in capital equipment, the family company had specialised in processing orange roughly, exporting more than 30 tonnes a week to the US. Quota restrictions were ultimately set by the Commonwealth government at 1,000 tonnes per annum, and the company was forced to restructure a major segment of its production operations.

#### Maintenance of Existing Operations

Of the 81 indigenous enterprises included in the study, the largest number of firms (N=51) are identified as having done very little to alter the existing rate of expansion among at least some of their operating segments (Table 6.1). In fact, the maintenance of existing operations represented the dominant strategy adopted by one-half (N=40) of all indigenous enterprises. Thirty-eight of these 40 companies maintained their operations with only the minimal investment required in replacement capital. Included among these companies are 29 firms in which senior management is satisfied with the level of business activity currently being undertaken, a further six firms operating in declining markets, and three enterprises in which management indicated that they wanted to expand but were constrained by a lack of material resources.

#### Firms Satisfied With the Current Level of Business Activity

All of the 29 companies controlled by senior managers who are satisfied with existing profits sell only within the Tasmanian market. Twenty-two of these firms are identified as operating in either static or highly competitive markets in which further expansion would most likely require expertise or financial resources which are beyond the means of the enterprise. With very few exceptions these companies are small to medium-sized, owner-managed operations. Eleven of these 22 enterprises compete primarily against other indigenous firms of similar size. The product markets in which they operate include advertising signs, printing, shopfittings and joinery. The remaining 11 firms compete mostly against larger externally owned companies, some of which have production facilities located within Tasmania. The product markets in which they operate

include concrete water tanks, domestic chemicals, clothing, table margarine, and paints. Most of these indigenous companies control only a small share of the Tasmanian market, often occupying segments of the market least serviced their larger non-locally owned competitors. For example, a small company in Hobart has captured a profitable share of the local paint market for industrial coatings. The close contact with local industry has given the Hobart firm a competitive advantage in a market where meeting specific customer requirements is often critical.

In each of the remaining seven firms in which owners are satisfied with existing profit levels, expansion is constrained primarily by the desire of owner-managers to remain small, rather than by the competitive pressures of the markets in which they operate. Four of these companies are very small family operations which are involved in manufacturing on little more than a part-time basis. They produce sports jumpers, wooden toys, laboratory glassware, and sandstone building blocks. The other three companies are medium-sized operations manufacturing quality wooden furniture, steel boats, and school clothing.

#### Firms Operating in Declining Markets or Constrained by a Lack of Material Resources

The six firms operating in declining markets include four owner-managed and two manager-operated enterprises which sell manufactured products only within Tasmania. Products manufactured by these firms include rubber pipe coatings, steel cranes, automotive batteries, block and party ice, electronic scoreboards, and industrial flour. Given that there exists little potential for expansion within manufacturing, each firm invested only a small amount of capital in its production facilities between 1980 and 1985. Four of the companies undertook minor expansion in areas outside manufacturing, involving either storage, repair, or design activities. However, these expansions were all small in scale, requiring virtually no additional investment by the firm.

The final three enterprises adopting a dominant strategy of maintaining their existing operation are family owned timber companies constrained by a lack of material resources. The owner-managers of each of these firms indicated that they would like very much to

expand, but had little other choice than to continue operating at a static level of manufactured output.

#### Maintenance of Existing Operations as a Minor Strategy

As well as the 40 indigenous companies following a dominant strategy involving the maintenance of existing operations, 11 other firms were identified as having merely maintained particular operating segments within their organisation. Of these firms, eight adopted dominant strategies which were expansion-based, and three were engaged primarily in the rationalisation of their operation between 1980 and 1985.

#### **6.2.3 Strategies Adopted by Non-Locally Owned Enterprises Between 1980-1985**

At a general level, the strategies adopted by Tasmania's 85 non-locally owned manufacturing enterprises between 1980 and 1985 were quite similar to those followed by the 81 indigenous firms surveyed. In total, the dominant strategies of less than one-half of all non-locally owned firms were expansion-based. Over 64 per cent of non-locally owned operations were engaged primarily in either the rationalisation of operating segments, or the maintenance of existing activities (Table 6.2). In contrast to the 81 indigenous firms surveyed, however, only a handful of non-locally owned operations expanded outside manufacturing. In addition, a higher percentage of non-locally owned firms primarily maintaining their existing level of business activity were simultaneously investing large sums of capital in their production operations in order to lower overall costs and, more importantly, the labour-time required per unit of manufactured output.

#### Expansion Within Manufacturing

Between 1980 and 1985, 49 (58 per cent) of the state's 85 non-locally owned manufacturing firms undertook some form of expansion within manufacturing (Table 6.2). Of these 49 firms, however, only 19 adopted expansion within manufacturing as their dominant strategy over the five year period. Expansion undertaken by these 19 enterprises was largely product rather than market-based. Specifically, 12 firms focused their

**Table 6.2: Dominant and Minor Growth Strategies Adopted by Non-Locally Owned Manufacturing Enterprises, 1980-1985**

	Expansion Within Manufacturing	Expansion Outside Manufacturing	Rationalisation of Existing Operations	Maintenance of Existing Operations	Total
<b>Dominant Strategy</b>					
Enterprises					
No.	19	2	13	51	85
%	22.3	2.3	15.2	60.0	100
<b>Minor Strategy</b>					
Enterprises					
No.	30	6	9	4	48
%	35.2	7.0	10.5	4.7	-
<b>Total</b>					
Enterprises					
No.	49	8	22	55	134
%	57.6	9.3	25.7	64.7	-

Source: Tasmanian Manufacturing Survey, 1986

expansion on the development of existing product lines, six enterprises diversified their product base, and one company expanded its manufacturing activity by entering new geographic markets.

#### Development of Existing Product Lines

Each of the 12 firms developing existing product lines undertook expansion at establishments already established within Tasmania. All but one of the 12 enterprises are intermediate segments of their externally-based parent organisation. Six of these intermediate branches manufacture primarily for export markets. They include four rural-based processors manufacturing frozen potato products, green vegetables, organic fertiliser and canned fish products and two filtered-down plants manufacturing confectionery and carpeting respectively. The companies manufacturing potato and vegetable products, Edgell-Birdseye and McCains Ltd, undertook major expansions which resulted in a number of additional product varieties being produced. The manufacturer of organic fertiliser expanded its product range after its previous parent company was taken-over by another mainland firm in 1983. A fishing company south of Hobart switched its main product from frozen to canned abalone following the company's takeover by a Perth-based company. Capital provided by the new parent firm enabled the small processing operation to install a \$100,000 canning line. Notwithstanding quota restrictions placed on abalone, sales of the canned product have been exceptional, enabling the company to sell within a broader segment of the Asian market.

The two large filtered-down companies focusing investment upon the development of existing product lines are Cadbury-Schweppes and Tascot Templeton. Between 1980 and 1985, Cadbury's confectionery plant near Hobart invested several million dollars in plant upgrades, particularly in its boxed chocolate facilities. Although considerable rationalisation took place at the Hobart plant during the late 1970s (see section 3.3.4), and the plant lost its cocoa processing operation in 1984 following the parent company's establishment of a centralised production facility in Singapore, the overall level of chocolate production has increased in Tasmania since 1980. Tascot Templeton's major



development has been to establish a range of bonded carpets targeted at the luxury segment of the floor covering market both within Australia and overseas. The gradual reductions in preference purchasing schemes among mainland states has aided greatly the company's success in marketing interstate, while the fall of the Australian dollar has increased the firm's competitiveness overseas. In 1985 Tascot was awarded its largest ever overseas contract, after underbidding both American and other Australian manufacturers for the supply of bonded carpets to Sheraton Hotels in the US.

The five remaining intermediate segments which expanded their existing product lines manufacture products primarily for the local market. They include Cadbury-Schweppes' soft drink plant in Hobart, the Cascade Brewery Company's breweries in Hobart and Launceston, and three smaller firms manufacturing foam furniture, building products, and clay building bricks. Cadbury's soft drink operation expanded significantly its range of carbonated beverages between 1980 and 1985. The largest single expansion occurred in 1985 when the Hobart plant acquired the Tasmanian franchise to manufacture products for the Pepsi-Cola company. Cascade's two major product developments included the introduction of a low alcohol beer for the Tasmanian market, and a premium lager for mainland markets. As a minor growth strategy, Cascade also penetrated the US market with beer sold under the Launceston plant's 'Boags' label. Since the interview with senior management in 1985, however, Cascade has taken more seriously its push into the US market. In 1987 the company announced it would inject more than \$2 million into the Launceston plant in order to increase export-based production.

The one laggard segment to increase substantially its range of manufactured products is a Hobart-based building products company. Operating previously as a branch of a small Victorian firm, the Tasmanian operation was purchased by ACI Industries in 1981. Between then and 1985, the operation's establishments in Hobart, Launceston and Devonport have all been upgraded to produce an expanded product range. Subsequently, the company opened a new production and retail facility in Burnie in 1987.

## Product Diversification

Between 1980 and 1985, the dominant strategy adopted by six non-locally owned enterprises was to diversify outside their existing range of manufactured products. The six companies operate in a wide range of industries, manufacturing poultry, seafood products, speciality cheeses, pharmaceuticals, textiles, and newsprint. The reasons for diversifying their production operations are varied. Three companies, Lactos Pty Ltd, National Textiles Ltd and Extal Pty Ltd, diversified their production base following a change in their ultimate ownership. Two other firms, Golden Poultry Industries and Australian Newsprint Mills Ltd (ANM), diversified their Tasmanian operations in order to utilise more fully the physical and managerial resources available to them within the state. The final enterprise, Safcol Pty Ltd, diversified into new products almost entirely as a response to the increasing level of resource constraints within the state's fish processing industry.

Established as an indigenous company in 1955, Lactos developed as an exporter of traditional cheeses (eg. Cheddar, Edam and Gouda) and butter. Following the retirement of its original founder in 1981 the company was purchased by a French cheese manufacturer, Bongrain S.A., which was seeking to enter the Australian market. Since 1981, Lactos has drawn heavily upon Bongrain's expertise to diversify away from traditional cheeses into speciality products including Brie, and Geramont Camembert which have the potential to generate a much greater profit for the Tasmanian company. The Australian market for speciality cheeses is currently dominated by products manufactured in Europe and marketed locally by Kraft Foods Ltd. Lactos is focusing upon sales on the mainland with the intention of capturing a large share of the Australian market. To do so, however, the company must increase substantially its production volume.

National Textiles diversified its product-base away from a general range of blended fabrics after its parent firm Tootal Australia sold its Devonport plant to the Linter group of companies in 1983. Within 12 months, Linter purchased two mainland fabric mills owned by Bradmill Australia Ltd in addition to the Devonport facility. In the company's subsequent restructuring program, the group's facilities for the weaving and finishing of

fabrics were centralised at Linter's plants in Victoria and New South Wales. The Devonport plant diversified into the production of bathroom and beach towels, and nearly \$3 million was injected in new capital equipment between 1983 and 1985. Over one-half of the finance required for the new equipment was provided by the Tasmanian Development Authority in the form of a low interest loan. The movement into towel production allowed the Devonport plant to concentrate on a segment of the textile market in which the nature of competition is based primarily upon product quality and is less influenced by fluctuations in the federal government's system of quota protection. By 1985 the Devonport plant was producing 26,000 towels per week, and planned to increase this by 30 per cent by the end of 1988.

The final company to diversify its product range after a change in ownership was one of the state's two manufacturers of pharmaceutical products, Extal Pty Ltd. In 1977 the company began harvesting and processing poppies under the direction of its Chicago-based parent organisation, Abbott Laboratories. At the time, Abbott's facilities for producing refined codeine were based in Sydney, and the Tasmanian plant was manufacturing only crude alkaloids. In 1982 Abbott divested a number of its foreign subsidiaries. The Australian operations of Abbott were purchased by the Johnson & Johnson Company. Within six months of the purchase, Johnson & Johnson centralised its Australian production facilities by closing the Sydney plant and transferring all codeine refining to Tasmania. The volume of products manufactured in Tasmania trebled within three years, with the number of production employees increasing from 24 to 39.

By making better use of existing physical and managerial resources, both ANM and Golden Poultry Industries diversified their production activities. Controlling virtually all of the Tasmanian poultry market in 1980, Golden Poultry could expand only in areas which were primarily outside its existing product base. In 1981 the Hobart-based enterprise purchased both the state's largest egg farm and a feed mill near Launceston from a large indigenous firm. The purchase of these two operations was a logical expansion strategy given that Golden Poultry already operated several small breeder hatcheries and feed mills for its internal stock requirements. Of the state's four largest non-locally owned

manufacturing enterprises (APPM, ANM, EZ Industries and Comalco), only ANM adopted a dominant strategy between 1980 and 1985 which was expansion-based. In 1983 the company announced it would spend \$2.4 million to expand its sawmill operations, and construct a wood veneer plant adjacent to its Boyer newsprint mill. The sawmilling extensions and veneer plant were completed in 1984, and employed 50 additional persons. The resource utilised for veneer manufacture is harvested from ANM's pulpwood concession area by the company's contract tree-fellers. The expansion of ANM's sawmilling operation, in particular, was valuable from the perspective of Tasmania's indigenous sawmillers. Upon its completion, ANM increased its output of sawn flitches to be sold to indigenous sawmills by 6,000m<sup>3</sup> annually, or nearly 50 per cent.

The diversification strategy adopted by Safcol Pty Ltd between 1980 and 1985 was as much based on survival as expansion. At the start of the 1980s, Safcol was encouraged by a previous decade of growth within Tasmania's fishing industry. However, overfishing of the state's fisheries resources virtually wiped out segments of Safcol's export processing operations within only a few years. Faced with an almost certain long-term decline in the state's established fisheries, Safcol adopted a growth strategy under which the fisheries resource base of the state would become far less important. The company diversified into three separate areas, two of which are production-based. First, one of Safcol's former fish processing facilities east of Hobart was converted into a small plant processing quail for the local restaurant industry. Second, the firm invested more than \$2 million to develop a sea farm for rainbow trout in the south east of Tasmania. Safcol's sea-raised trout venture represents a major part of the state's growing aquaculture industry, and has been a huge success to date. Tasmanian trout sells for nearly \$6 per kilogram in mainland restaurant markets, and is highly competitive against species of similar quality including barramundi and King George whiting. In addition to its diversification within manufacturing Safcol also established a food service division near its state headquarters in 1982, selling a range of frozen foods to hotels and restaurants in

southern Tasmania. Together, Safcol's three new ventures greatly strengthened the company's performance in what would otherwise have been a disastrous trading period. In addition, the three major developments generated more than 200 new jobs in southern Tasmania, most of which were part-time positions in rural areas.

#### Market Penetration

Only one non-locally owned enterprise adopted a dominant strategy of market penetration between 1980 and 1985. The company, Tasmanian Marine Products, purchased a small Hobart-based indigenous fish processor in 1983. At that time, the enterprise operated on a very small scale, selling fish only to local hotels and restaurants in the Hobart area. In 1983, when the Perth owned company bought out the indigenous operation, it planned both to expand the range and volume of fish processed, and to focus upon markets outside Tasmania. By 1985, 75 per cent of all product sales were outside Tasmania, including 15 per cent sold in overseas markets. However, the rapid decline in the availability of several species of fish and crustaceans prohibited the company from greatly expanding the scale of the processing operation.

#### Expansion Within Manufacturing as a Minor Strategy

As well as the 19 non-locally owned enterprises following a dominant strategy of expansion within manufacturing between 1980 and 1985, 30 other non-locally owned firms undertook minor expansion of their production operations. The largest number of these (N=24) are firms which undertook minor developments of existing product lines. They include 15 intermediate and nine laggard enterprises. A smaller number of enterprises (N=4) diversified their production base. They include a large intermediate textile firm in Launceston which switched from lightweight to medium fabric manufacture, and three small laggard operations which diversified a small segment of their production activities. Finally, two companies are identified as having worked to develop existing markets for their manufactured products. They are a large Launceston manufacturer of knitting yarn which secured long-term supply contracts with Coles-Myer, and EZ

Industries which actively strengthened its market position within the US following the devaluation of the Australian dollar.

#### Expansion Outside Manufacturing

Quite unlike the indigenous manufacturing sector, only a handful of non-locally owned enterprises expanded their Tasmanian operations in areas outside manufacturing between 1980 and 1985. In part, this reflects the dominance of large non-locally owned enterprises which are engaged solely in the semi-processing and export of resource-based materials. In addition, many laggard branches selling within the Tasmanian market are constrained by the policies of the parent companies to which they belong. As indicated in Chapter 5, survey evidence suggests that the policies dictating growth among non-locally owned enterprises are typically formulated by executives outside the state, with only minimal input from local management. Consequently, competitive strategies adopted within the Tasmanian market are often similar to those followed by other branches of the parent organisation interstate. Given that most branches on the mainland are both larger in size and are serving larger markets than those in Tasmania, it is likely that a single strategy imposed upon the two operations would yield very different results. In particular, it is concluded that many parent organisations on the mainland have failed to recognise the importance of, and potential for, service-based expansion within Tasmania.

In total, 44 of the 47 laggard branches operating in Tasmania were established prior to the mid-1970s. At the time of their initial development most of these operations were established to capture a share of what was considered to be a growing (albeit small) state market. Most operations were thus built on a scale which would enable them to serve the entire state. In some markets such as building products, PVC pipe manufacture, quarry products, and heavy engineering, more than one large mainland manufacturing group established a Tasmanian production facility. As a result, Tasmania was overserved (and overcapitalised) in a number of product markets. Both a slower than expected rate of population and sales growth within Tasmania and generally poor trading conditions since the mid-1970s have seriously eroded profit levels within many of these firms. Due largely

to the constraints imposed by their parent companies, most laggard segments have been slow to respond to the changing market conditions within the state. As demonstrated in the previous section, many indigenous firms have been able to survive within a declining product market by expanding in areas outside production. However, the parent companies of many laggard branches appear unwilling to focus upon broader production activities in the state. Local managers have neither the power or resources to generate changes themselves, and must live with the often inflexible policies dictated by their external head office.

In total, only eight non-locally owned firms undertook expansion outside manufacturing between 1980 and 1985 (Table 6.2). Only two of these adopted expansion outside production as their dominant strategy. They are a Launceston branch of Boral Ltd's energy division which manufactures and distributes industrial gases, and a Hobart subsidiary of James Hardie Industries which produces fire fighting equipment. Both are laggard operating segments of their respective parent organisations, and sell only within the Tasmanian market. In 1982 Boral Ltd purchased the Launceston Gas Company which had been in operation since 1858, serving the local market for reticulated gas. In the two years before Boral's takeover, the indigenous manufacturer had amassed operating losses of more than \$300,000 as it was unable to finance the capital investments necessary to expand beyond the dwindling market for reticulated gas. Boral's strategy after purchasing the company was virtually to cease production of reticulated gas, and concentrate upon the distribution of LP gas for a growing industrial market throughout the state. To pursue that strategy, Boral undertook two major investments between 1983 and 1985. First, the company purchased the Hobart-based energy division of its major competitor Commonwealth Industrial Gases Ltd (CIG) for \$5.5 million. CIG was willing to abandon its energy division within Tasmania as its strategy over the period was to concentrate on the manufacture of gases for the food and medical markets. Second, Boral constructed a \$3.7 million bulk storage facility for LP gas at the port of Devonport. All LP gas purchased is manufactured by BHP's petroleum division on the mainland and transported to Tasmania in a ship owned and operated by Boral.

The James Hardie subsidiary manufacturing fire fighting equipment operates a branch in Launceston in addition to the state head office in Hobart. Originally an indigenous electrical contracting operation, the company was purchased by James Hardie in 1980. Although the fabrication of fire fighting systems has been introduced since 1980, the main strategy adopted by the firm has been to increase its activities outside production, including the maintenance of fire protection equipment, and the provision of design engineering services to local electrical firms.

In addition to the operations of Boral and James Hardie, six other non-locally owned manufacturers have undertaken minor expansions outside manufacturing. Products manufactured by these companies include processed seafood, beer, industrial gases, dressed timber, domestic paper products, and ice cream. Each firm has expanded its wholesale activities throughout the state, increasing the utilisation of existing storage and distribution facilities. In fact, only one of these enterprises, the Cascade Brewery Company, expanded its physical operations in order to increase the amount of wholesaling undertaken. Between 1980 and 1985 Cascade expanded its number of wholesale liquor facilities in Hobart and Launceston.

#### Rationalisation of Existing Operations

Twenty-two of the state's 85 non-locally owned manufacturing enterprises rationalised segments of their operation between 1980 and 1985. For 13 of these firms, rationalisation of activities represented the dominant strategy followed during the five year period. Included among the 13 companies are 10 laggard and three intermediate branch segments of mainland-based parent organisations. All but one of the laggard segments sells manufactured products only in Tasmania, as do two of the three intermediate operations. Of the 13 companies rationalising, six worked primarily to reduce the scale of their manufacturing operations, while rationalisation among seven enterprises took the form of establishment closures.



### Reduction in the Scale of Manufacturing Activities

The six firms which reduced significantly the scale of their production activities include two filtered-down operations which export their manufactured products and four firms manufacturing durable goods for the Tasmanian market. In 1982, a Launceston textile firm manufacturing lightweight filament fabrics was targeted for closure by its UK-based parent company Courtaulds Hilton, which claimed that its Tasmanian operation, James Nelson Pty Ltd, no longer fitted into its core product area. As an alternative to the plant's closure, the Department of Industrial Development (the Tasmanian government's predecessor to the Tasmanian Development Authority) organised an Australian buy-out involving James Nelson's major competitor (Omnitex Industries) and four executives from the Launceston mill. With financial assistance provided by the Tasmanian government, the Launceston facility became part of Omnitex in 1983. As part of Omnitex, James Nelson's operation was integrated into a multi-plant production system involving three other fabric mills on the mainland. To fit into this new system, the Launceston operation was rationalised considerably. Rather than manufacturing finished products as it had done under the ownership of Courtaulds, manufacturing was limited to the weaving of semi-processed materials which were transferred to other plants outside Tasmania. Manufactured output, product sales and factory employment were all reduced as part of the restructuring. Events taking place since the interview in 1985, however, suggest a major reversal in Omnitex's strategy. Early in 1986, the company announced it would spend \$8 million upgrading the Launceston plant, increasing both the value-added and finished product component of fabrics produced in the state. The dramatic change in Omnitex's strategy highlights the dynamic nature of corporate decision-making, and the need to continually monitor changes taking place at the plant level.

A second textile manufacturer, Sheridan Textiles Pty Ltd, reduced the scale of its manufacturing activities just prior to 1980. In 1978 the plant's parent company Pacific Dunlop announced a planned restructuring within its textile division. As part of the restructuring, all weaving and apparel printing facilities were transferred from the Tasmanian operation to other branches within the group outside the state. Production in

Hobart became highly specialised, and only bedding linens were manufactured. As a result of the restructuring, employment at the Hobart plant was reduced by nearly one-half, to 300 persons. In 1986 Pacific Dunlop divested its Sheridan Domestic Textiles division in a move to raise additional capital needed to fund major investments undertaken in New Zealand and the US. The Hobart plant was purchased by Bruck (Australia) Ltd, a privately owned company based in Melbourne. Within one year, Bruck was taken over by another private company Brenmoss Pty Ltd. In addition to Sheridan in Hobart, Brenmoss operates two plants in Melbourne and one in Adelaide. Although Sheridan continues to concentrate upon manufacturing bedding linen, Brenmoss' strategy is eventually to recommission the Hobart plant's apparel weaving and dyeing facilities.

In addition to the two textile manufacturers, four branch operations manufacturing durable goods for the Tasmanian market have also reduced markedly the scale of their manufacturing activities. These four firms comprise an intermediate segment operating in the state's heavy engineering industry, and three laggard segments manufacturing products including heating and air conditioning units, steel pipes, and iron castings. Between 1980 and 1985 all four enterprises realised considerable trading losses, associated largely with the severe downturn in the state's construction industries. As part of a survival strategy, each operation reduced its workforce and attempted to divest a portion of its production capital. Although each operation continued to trade through 1985 when the thesis interviews were completed, the firms manufacturing steel pipes and iron castings have since been closed by their parent companies.

#### Establishment Closure

The dominant strategy among seven laggard non-locally owned enterprises involved the rationalisation of their operation via the closure of individual establishments. In particular, four medium-sized branches which closed establishments operate in product markets in which sales were stagnant and competition from indigenous capital was especially strong between 1980 and 1985. The four firms manufacture products including aluminium windows, window furnishings, fishing and sports nets, and advertising signs.

Typical of most laggard segments established in Tasmania prior to 1975, these operations were located in the state to service the entire Tasmanian market. Based in Hobart, with additional branches operating in the north and north west regions, each firm traded profitably until the late 1970s when their markets stabilised. The building recession of the early 1980s led to a reduction within each firm's market. Most critical was a sharp reduction in the availability of medium and large-scale building contracts within both the public and private sector. Without these major contracts, the four branch operations of the two building firms were forced to compete against smaller indigenous producers for a larger share of the one-off product market. Operating with much higher overhead costs, the non-locally owned companies found themselves unable to compete successfully against the indigenous firms (Hood, 1987). Consequently, each of the four firms eventually closed its branches located in the north and north west regions of the state in an attempt to centralise production capital, reduce the overall scale of manufacturing activities, and emerge as more viable competitors within their respective markets.

Two other large non-locally owned manufacturers also closed establishments in response to declining market conditions. First, a subsidiary of Boral Ltd, manufacturing ready-mix cement and quarry products, closed two cement plants in southern Tasmania as the demand for cement within the state fell dramatically during the building recession of the early 1980s (see Figure 6.4). Second, a manufacturer of corrugated paper containers closed its manufacturing and distribution centre in Devonport, centralising all production activities at its state head office in Launceston. The final enterprise to reduce its number of operating establishments was a Devonport firm manufacturing a range of reinforced plastic products. Following the decision of its US-based parent company to sell the group's Australian division, the Tasmanian enterprise was purchased by a Sydney-based company Transfield Ltd (see section 6.1.4). Prior to the purchase, the Tasmanian enterprise acted as the head office for additional plants located in Melbourne, Sydney and Singapore. After the Tasmanian operation was sold, the Launceston plant lost its authority over the three plants as they were amalgamated into Transfield's organisation.

### Rationalisation of Existing Operations as a Minor Strategy

A total of nine non-locally owned manufacturers rationalised segments of their existing operation as part of a minor strategy between 1980 and 1985. One firm, a large Devonport-based textile company, rationalised its production of blended fabrics in order to accommodate its diversification into towel manufacture (see discussion earlier in this section). Each of the eight remaining companies abandoned one or more products which were manufactured in 1980. For all but one of these companies, the decision to abandon products was made on the basis of their declining profitability in final demand markets. Products abandoned comprised goods for the packaging, optical, hand tools, paint, and food products markets. One enterprise, Cadbury's confectionery operation near Hobart, abandoned its processing of cocoa beans after the parent company centralised the production of cocoa mass for the Pacific region in Singapore.

### Maintenance of Existing Operations

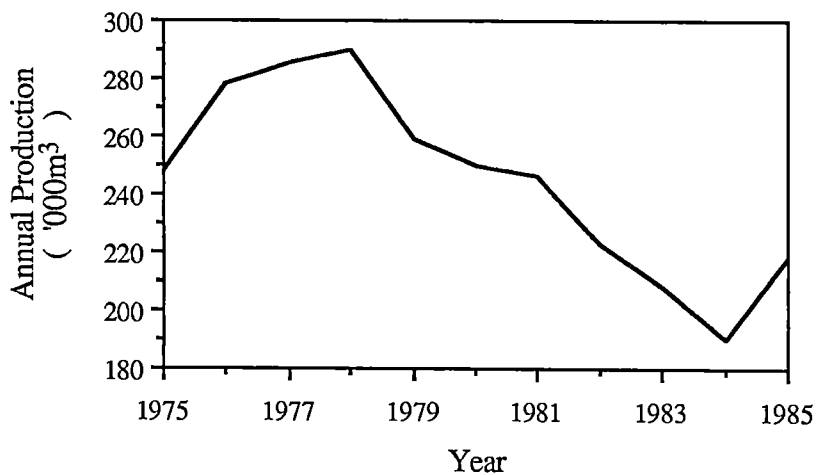
Like the state's indigenous manufacturing sector, the largest number of non-locally owned enterprises (N=51) adopted a dominant strategy of merely maintaining their existing operations between 1980 and 1985 (Table 6.2). Of these 51 enterprises, two groups of firms are identified. First, 33 companies maintained their existing operations by injecting only a small amount of capital into their plant facilities. In contrast, the remaining 18 enterprises invested heavily in new process technology to lower the cost of production. A central objective of most firms investing in new technology was to lower the level of labour inputs required in the manufacturing process.

### Firms Undertaking Only Minimal Investment

The 33 companies undertaking only minimal investment include 25 laggard and only eight intermediate operating segments of externally-based parent organisations. The laggard segments are predominantly small to medium-sized operations oriented toward sales of manufactured products within the limited local market. Specifically, 16 laggard segments are constrained primarily by the lack of growth or actual decline in the

Tasmanian market for their products. Product markets in which they operate include building products, bedding materials, industrial explosives, breakfast cereals, and optical lenses. In addition, six of the laggard segments manufacture packaging materials for which there is a extremely limited market. A further four firms are constrained by either market dependency or subcontract relationships which they have entered into with larger non-locally owned enterprises. Two of these companies, manufacturing liquid starches and bleaching chemicals, are dependent solely upon the state's two paper producers, APPM and ANM, for all product sales. A third firm supplies malt extracts to Wander Ltd's Ovaltine factory in Devonport, while the fourth company manufactures food gases for the statewide soft drink operations of Coca-Cola and Cadbury-Schweppes.

**Figure 6.4: Cement Production, Tasmania, 1975-85<sup>1</sup>**



Source: ABS data.

<sup>1</sup>Production for local consumption

Other companies investing only a minimal amount of capital in their operations include the state's two largest manufacturers of ready-mix cement, seven enterprises constrained by a lack of resource-based materials, and three filtered-down operations. Between 1981 and 1984 when the building market was severely depressed, annual production of cement for local consumption in Tasmania fell by over 25 per cent (Figure 6.4). As the number of major cement contracts declined, the two major ready-mix companies, Boral Ltd and Pioneer Concrete Services Ltd, competed more intensely against

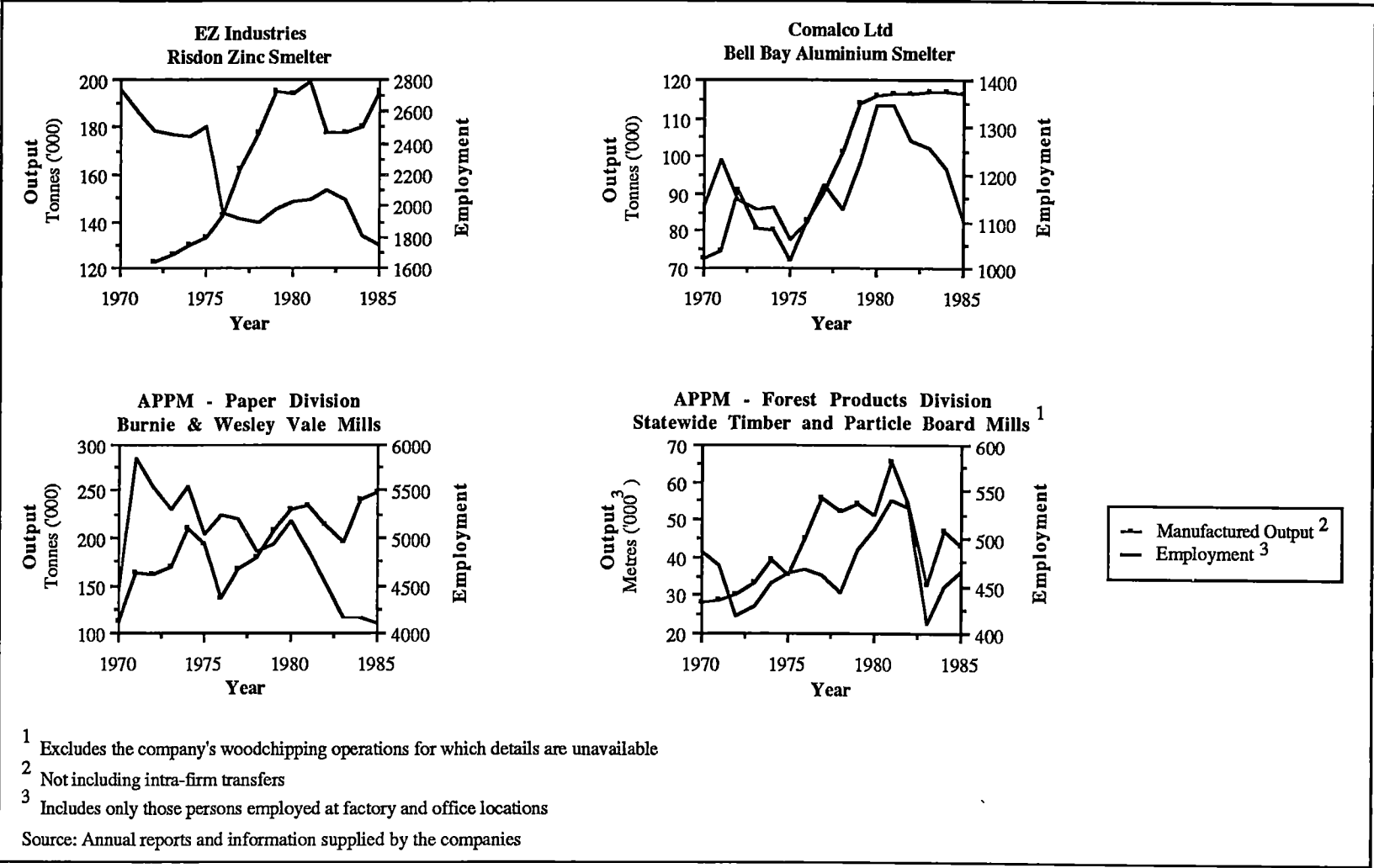
the state's smaller indigenous cement manufacturers for a larger share of the one-off private sector market. Pioneer retained all of its production facilities, but Boral closed two of its cement plants. The seven companies constrained by a lack of material resources are engaged in the manufacture of timber, fish and meat products for markets outside Tasmania. Given the uncertainties of future resource availability, their parent companies were reluctant to invest heavily into process technology. Finally, the three filtered-down firms manufacture denim jeans, wire products and mining equipment. Using standard process technologies, each firm realises moderate profits in mainland markets and has done little to alter the character of the local operation since 1980.

#### Firms Investing Heavily in Process Technology

In contrast to the 33 enterprises maintaining their operations with only limited investment, 18 non-locally owned firms undertook major investments in process technology in order to reduce manufacturing costs and increase their competitive position *vis a vis* other firms. An objective central to most firms was to reduce the amount of labour input into the manufacturing process. Of the 18 enterprises, 11 are intermediate operating segments undertaking production activities which are central to those of the parent organisation to which they belong. In addition, 16 of the 18 are large employers, maintaining a Tasmanian workforce of more than 100 persons.

A total of 10 enterprises are resource-based operations manufacturing for export markets. These firms manufacture within a narrow range of product groups, including timber products, processed vegetables and metallic and non-metallic minerals. Included among them are three of Tasmania's four largest manufacturers, APPM, EZ Industries, and Comalco. Investment undertaken by these three companies illustrates the general tendency among most large resource-based firms to maintain or increase output while lowering the direct labour inputs to the production process (Figure 6.5). With the exception of APPM's forest products division, Tasmanian production segments within each of the three firms have maintained their level of output but have reduced labour inputs. Within EZ and APPM's paper division, in particular, reductions in the workforce

Figure 6.5: Shifts in Employment and Output Within EZ, Comalco, and APPM, 1970-1985



between 1980 and 1985 represented the continuation of labour reductions taking place since the early 1970s. In 1987 EZ announced it would spend nearly \$250 million to increase the capacity at Risdon by 50 per cent, to 320,000tpa. The investment program, scheduled for completion in 1990, will result in the Risdon plant becoming the largest zinc smelter in the western world. Although production will increase by one-half, the factory workforce is expected to fall by a further 350 persons by the time expansions are completed.

At Comalco's Bell Bay aluminium smelter, employment increases between the mid-1970s and 1980 were associated with major investments which increased the plant's production capacity by more than 25 per cent, to 117,000tpa. Between 1980 and 1985, however, Comalco reduced its factory workforce while production levels remained relatively constant. In 1985 the future of Comalco's Bell Bay facility appeared uncertain as the plant was grossly inefficient compared with the parent company's smelters in Queensland and New Zealand. In March 1988, Comalco unexpectedly announced that it planned to establish a plant adjacent to the smelter manufacturing alloy wheels for use as original equipment in overseas automotive markets. When the plant is completed, it is expected to employ approximately 150 persons. Although not as yet committed to additional investment, Comalco also announced its intention eventually to expand the facility to include the manufacture of alloy engine blocks and cylinder heads for the world car market.

APPM's forest products division has reduced its factory workforce through investment in automated production and handling equipment for its timber operations. The employment increase shown in Figure 6.5 during the late 1970s simply reflects additional workers acquired following APPM's takeover of two indigenous timber companies in the north of the state. Between 1980 and 1985, however, employment loss within the company's timber operations was largely the result of reduced output resulting from the national recession in the building industry.

In addition to the 10 resource-based companies, four filtered-down operations and four firms manufacturing for the Tasmanian market have also undertaken major



investments in process technology. The filtered-down operations are the Coats Patons domestic knitting yarn factory in Launceston, Repco's bearing plant in Launceston, the Devonport operation of Wander Ltd, and the Hobart hand tool manufacturer Stanley Australia Ltd. Each operates in highly competitive markets outside Tasmania, and has undertaken major investments aimed at reducing local production costs. With the exception of Wander, each plant has reduced its production workforce by more than 50 persons since 1980. The four companies selling within the Tasmanian market manufacture ice cream, soft drinks, medical and food gases, and bitumen road surfaces. Each of these firms modernised its production operation by investing in improved technology, and also retained its employment level between 1980 and 1985. Typical of these companies is the manufacturer of Peters ice cream products, Australian United Foods Ltd. In the course of replacing outdated equipment at its Launceston plant, the firm has purchased a number of machines which have both improved the efficiency of existing production and provided a more flexible processing system from which a broader range of products can be manufactured.

#### **6.2.4 Summary**

From the survey of indigenous and non-locally owned enterprises it is clear that the processes underlying strategies of growth, rationalisation, and survival are enormously complex, and can only be examined properly in light of the corporate-specific situations in which they occur. Although a number of firms may adopt a similar strategy of development, the constraints to growth among them may be entirely different, depending upon the nature of product demand, the availability of material resources, and the ability of management to respond to changing conditions both within and external to the firm. Conversely, management of different firms often responds to similar constraints in very different ways. A prime example of this is the wide range of responses made by Tasmanian manufacturers to decreasing levels of resource-based materials (eg. timber, fisheries, and livestock) between 1980 and 1985. Faced with a decline in these resources, some firms diversified into other areas of manufacture, while others either undertook

expansion outside manufacturing or simply reduced the overall level of activity within the enterprise. A number of general conclusions can be drawn from processes identified as underlying the dominant and minor strategies adopted by manufacturing enterprises between 1980 and 1985.

Expansion was undertaken as a dominant strategy by slightly more indigenous than non-locally owned firms, and was oriented primarily toward either the improvement of existing products or the introduction of new products within existing product lines. While expansion within manufacturing among indigenous firms was evenly balanced between owner-managed and manager-operated enterprises, non-locally owned firms undertaking expansion were predominantly intermediate segments of their parent organisation. Market-based expansion of manufacturing activities was more prevalent among indigenous firms, involving either expansion into new markets, or a strengthening of their position within existing markets. Strategies of product diversification were more often adopted by non-locally owned enterprises as a result of an ownership change in the parent company outside Tasmania leading to restructuring of group production operations.

A much higher proportion of indigenous than non-locally owned firms expanded outside manufacturing. As a dominant strategy, expansion outside manufacturing by indigenous capital centred upon the establishment of retail activities by medium-sized owner-managed companies. New establishments were set up in all cases but few of these companies expanded outside the local region in which they are based. As a minor strategy, expansion outside manufacturing among indigenous firms focused upon wholesaling, trade services, and equity investment. Expansion of wholesale and trade service operations was especially attractive to owner-managed firms as growth was often achieved with only minimal commitment of capital investment. By investing in corporate equities, several medium to large-sized manager-operated firms have increased their level of authority over trade customers, suppliers, and market competitors. Equity investment was also attractive to several firms as it provided a means of receiving profits without the firm having to incur additional managerial responsibilities.

A similar number of indigenous and non-locally owned firms adopted dominant strategies which resulted in the rationalisation of their Tasmanian operations. Among indigenous firms, rationalisation typically involved the closure of establishments within both owner-managed and manager-operated multi-site operations. Most of the non-locally owned enterprises which undertook major rationalisation are medium-sized laggard operating segments of their parent company, oriented toward the limited Tasmanian market. Among these enterprises, establishment closure was often associated with declining market conditions within the durable goods sector, and the inability of non-locally owned operations to compete successfully against smaller indigenous operations within one-off product markets.

By far, the majority of both indigenous and non-locally owned firms adopted a dominant strategy of merely maintaining existing production and non-production activities. Most indigenous firms injected only minimal levels of capital into the business between 1980 and 1985. Most of these are small firms in which management is satisfied with the levels of profit available within existing product markets. A small number of indigenous firms have struggled to maintain their level of operations within declining markets or where the enterprise is constrained through a declining availability of resource-based materials. Non-locally owned firms merely maintaining production are predominantly laggard segments constrained by either Tasmania's small final market or a dependency on intermediate markets for goods such as packaging, industrial gases and chemicals. More importantly, however, 18 of Tasmania's largest enterprises have maintained their existing operations while investing heavily in new processed-based technology aimed at reducing production costs, especially labour. Most of these enterprises are intermediate segments of their parent organisation, selling resource-based and filtered-down products within highly competitive markets outside Tasmania. In order to survive, long-term strategies incorporate the adoption of new technologies to improve the competitive positions of these firms internationally. The reduction of labour-input per unit of manufactured product is critical to this competitiveness.

### **6.3 STRUCTURAL CHANGE IN THE TASMANIAN MANUFACTURING ECONOMY 1980-1985**

The final section of the chapter summarises the nature of structural change within the state's manufacturing economy between 1980 and 1985. Of particular concern are changes which have taken place in employment, investment, and the volume of manufactured output. In order to provide a comparison between the performance of indigenous and non-locally owned enterprises over the five year period, structural change data for the 40 single-site indigenous firms employing fewer than 100 persons are weighted to approximate the population of firms (see section 2.2.7, and Appendix 2). Applying weights to these firms is intended to give a broad indication of changes for the state as a whole. It is not assumed that the processes influencing the growth or decline of the population of small indigenous firms are the same as those identified in the interview sample. However, a detailed knowledge of the state's manufacturing economy suggests that the range of strategies adopted by the 40 small and medium-sized single-site indigenous firms which were interviewed is generally representative of the strategies being followed by small indigenous firms as a whole.

This is certainly not to say that all small to medium-sized indigenous firms are following strategies identified from the interviews. For example, among the 81 indigenous firms interviewed, none could be identified as 'leader' small firm business organisations likely to establish themselves as major elements within national markets, or likely to develop into large business organisations (Taylor and Thrift, 1981a, 1982a). At least two small Tasmanian owned firms not included in the interview sample, however, do operate as leader segments. The first, a manufacturer of radio antennae, has captured 75 per cent of the Australian marine radio antennae market since it began operations in 1978. Employing less than 20 persons, the company also markets successfully in a number of Asian countries. Within the past few years the firm has developed a number of successful products, and employs two full-time engineers in product development. The second company, also established in 1978, designs and manufactures wave-piercing catamarans for the world market. In the past 10 years, the Tasmanian company has built more than 35

twin-hulled ferries at shipyards in Queensland, New Zealand, Singapore, Hong Kong, Seattle and Hobart. In 1984 the company signed its biggest deal to date, to supply a number of 500 seat ships for the UK-based Sealink Ferries group.

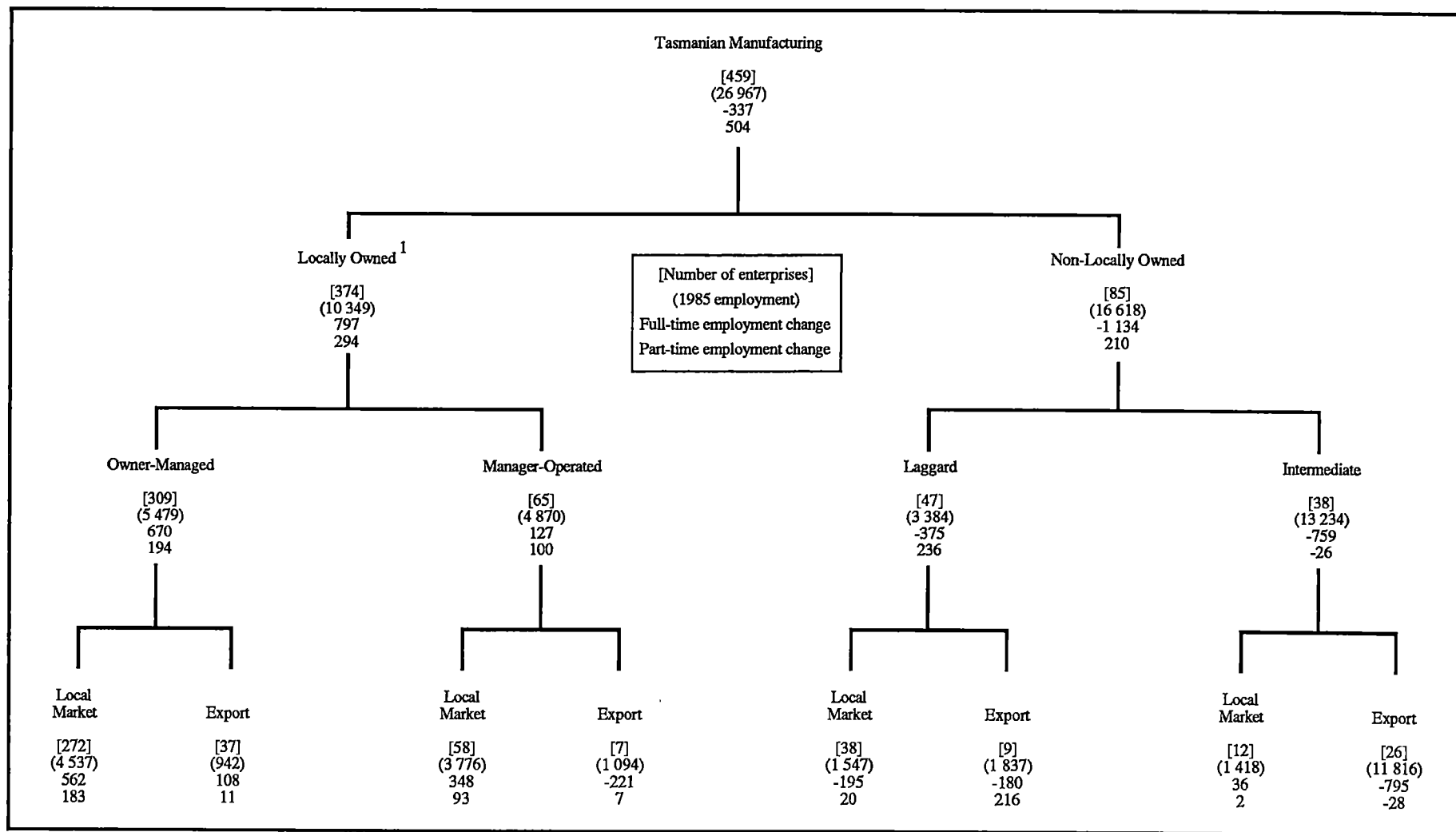
By weighting the 40 single-site indigenous firms employing fewer than 100 persons which were interviewed, the following discussion is based upon the total Tasmanian population of 374 indigenous and 85 non-locally owned manufacturing firms described in section 3.4.

The analysis of changes in employment, investment and the volume of manufactured output within the state's manufacturing economy between 1980 and 1985 leads to a number of important conclusions. Aggregate patterns of change clearly result from, and reflect the dominant strategies identified at the enterprise level. In particular, strategies of expansion have resulted in increasing employment levels within both owner-managed and manager-operated enterprises oriented toward the local market. Conversely, strategies of rationalisation and capital intensification of existing operations have reduced employment within both laggard and intermediate non-locally owned operations. Capital investment within the state's manufacturing sector between 1980 and 1985 was dominated by a few large non-locally owned firms. Within small and medium-sized indigenous owner-managed and non-locally owned laggard enterprises, expansion of physical output was especially low over the period, attributable mostly to stagnant or declining local market conditions. Enterprises oriented toward markets outside Tasmania increased physical output, although a number of constraints such as the availability of resource-based materials and increasing foreign competition in mainland markets limited the potential for expansion within production-based activities.

#### **6.3.1 Employment Change**

Between 1980 and 1985, Tasmania's 459 manufacturing establishments realised a net loss of 337 full-time employees (- 1 per cent) and a net gain of 504 part-time employees, representing a 47 per cent increase in part-time employment (Figure 6.6). As demonstrated elsewhere, the decline in full-time employment represents a continuation of

Figure 6.6: Employment Change by Market Orientation of Manufacturing Enterprises, 1980 - 1985



job loss which has occurred since 1970 when nearly 32,000 persons were employed within Tasmania's manufacturing sector (Hood, 1987, p. 154). Survey evidence suggests two primary reasons for the marked increase in part-time employment between 1980 and 1985. First, many enterprises which have rationalised their operations over the period have transferred some workers to part-time employment as an alternative to redundancy. Second, part-time employment has become more attractive from the employer's point of view as it avoids many of the on-costs which apply to full-time wage and salary earners, and maintains their ability to decrease staffing levels at a later date without incurring the full cost of redundancy payments. This has been especially important among many of the large non-locally owned intermediate manufacturers which have either rationalised segments of their operation or invested heavily in process technology, reducing the firm's labour input into manufacturing activities.

#### Ownership and Industry

Only the indigenous firm sector realised a net gain in employment between 1980 and 1985, with an increase of 797 full-time (9 per cent) and 294 part-time (51 per cent) employees (Figure 6.6 and Table 6.3). Net growth was highest among the state's 309 owner-managed enterprises (864 persons), although the overall rate of growth was fairly even between owner-managed and manager-operated firms. Among owner-managed firms, over 85 per cent of employment growth occurred within small and medium-sized operations manufacturing products for the Tasmanian market. Employment growth among firms selling locally is even more evident among the state's 127 manager-operated enterprises. In total, 441 jobs were created within manager-operated firms manufacturing for the local market, while manager-operated companies manufacturing for markets outside the state reduced their net employment by 214 jobs. Employment growth within manager-operated companies selling locally is attributable primarily to a few medium and large-sized firms which have undertaken expansion outside manufacturing. Many of the jobs created are in activities such as retailing, transport and distribution, and various trade services. Net employment loss within export-oriented, manager-operated enterprises reflects both

Table 6.3: Employment Change in Tasmanian Manufacturing by Industry, 1980-1985

Industry	Locally-Owned <sup>1</sup>				Non-locally Owned				Total			
	Full-time		Part-time		Full-time		Part-time		Full-time		Part-time	
	Net chg	% chg	Net chg	% chg	Net chg	% chg	Net chg	% chg	Net chg	% chg	Net chg	% chg
Food & beverage products	- 92	- 5	77	28	312	10	196	88	220	5	273	57
Textiles	44	258	9	800	- 55	- 4	- 58	- 28	- 11	- 1	- 49	- 24
Clothing & footwear	91	38	14	460	35	36	1	100	126	37	15	500
Wood, wood products and furniture <sup>2</sup>	n.p.	n.p.	20	29	- 218	- 13	11	73	329	10	31	32
Paper, paper products publishing & printing	- 3	-	71	124	- 389	- 9	34	680	- 392	- 9	105	62
Chemical, petroleum & coal products	27	12	26	38	- 39	- 6	8	64	- 12	- 2	34	41
Non-metallic mineral products	- 27	- 4	1	20	9	2	- 1	- 12	- 18	- 2	-	-
Basic metal products	- 11	-15	10	800	- 437	- 11	-	-	- 448	- 12	10	566
Fabricated metal products	97	17	16	145	- 202	- 26	9	800	- 105	- 9	25	184
Transport equipment <sup>2</sup>	n.p.	n.p.	18	105	-106	- 19	1	50	94	11	19	85
Industrial machinery & equipment	- 95	- 15	10	900	19	29	1	100	- 76	- 4	11	800
Miscellaneous manufacturing	19	5	22	29	- 63	- 34	8	116	- 44	- 5	30	36
Total manufacturing	797	9	294	51	- 1,134	- 7	210	43	- 337	- 1	504	47

<sup>1</sup> Figures for locally owned firms employing less than 100 are based on a sample (see Table 2.4)

<sup>2</sup> The large percentage of small enterprises within these industrial groups resulted in estimates of employment change based on the firms interviewed (11 & 3 respectively) being unreliable. Although the estimates correctly identify an employment increase within each industry, the figure is not published.

Source: Tasmanian Manufacturing Survey, 1986



rationalisation taking place among medium to large-sized firms constrained by declining levels of local resources (eg. timber and livestock), and the decision by a few other large manufacturers to divest segments of their production operations in order to accumulate additional capital for expansion outside production.

Between 1980 and 1985, non-locally owned manufacturing firms, in aggregate, decreased full-time employment by 1,134 persons (-7 per cent) while part-time employment increased by 210 persons (43 per cent) (Figure 6.6 and Table 6.3). Net employment loss was highest among the 26 intermediate segments engaged in resource-based and filtered-down manufacturing for markets outside Tasmania. Job loss among these firms, some of the state's largest employers, totalled 823 persons over the period. In fact, over three-quarters of the net employment loss within the non-local sector was accounted for by three of Tasmania's four largest resource-based firms, APPM, EZ and Comalco. As described earlier in the chapter, the dominant strategy adopted by each of these firms has been to maintain or increase the level of output while reducing considerably their factory workforce (Figure 6.5). As a result, employment within Tasmania's paper and basic metals industries declined considerably (Table 6.3). The only group of non-locally owned enterprises which, in aggregate, maintained its employment level since 1980 comprises the 12 intermediate segments manufacturing for the Tasmanian market. Although expansion among these firms is constrained by the state's limited population, most operate in product markets (eg. soft drinks, beer, and glass packaging) in which they have secured dominant trading positions, and face only minimal competition from indigenous capital.

Non-locally owned laggard enterprises manufacturing for both local and export markets decreased full-time employment by a total of 375 persons over the period (Figure 6.6). As noted in the preceding section, laggard segments manufacturing durable goods for the local market have performed poorly in the face of increased competition from smaller indigenous producers since 1980, especially in the fabricated metals sector where full-time employment has fallen by more than 200 persons (Table 6.3). The loss of 180 full-time jobs among Tasmania's nine laggard segments manufacturing for export markets

is associated primarily with investment aimed at reducing production costs at Repco's bearing plant in Launceston and Tioxide's Burnie factory manufacturing titanium dioxide pigments for the paint industry. The increase of 216 part-jobs among export-oriented laggard segments is primarily the result of Safcol's diversification of its food-based activities both within and outside manufacturing (Table 6.3).

#### Employment Type

Table 6.4 identifies changes in employment by ownership and occupational category. Of the 871 jobs shed by the four largest manufacturers, most were within areas of production, engineering and maintenance. The largest single loss of employment (606 jobs) occurred at APPM's Burnie paper mill, where the company has undertaken a number of major investments in production, packaging and transport segments of its operation. APPM, EZ and Comalco have reduced the number of engineering and maintenance staff, as investments undertaken have lowered employment requirements in these areas. A senior manager at APPM indicated that the company has also adopted a policy of subcontracting out an increased proportion of engineering and maintenance services to local indigenous companies. By subcontracting out such services, and reducing its direct current employment, APPM is in a better position to reduce further its non-production workforce once additional capital investment is undertaken. In effect, APPM has externalised the burden of possible future employment loss to indigenous capital. Other changes among the four largest resource-based firms include a net loss of 14 research positions, mostly within APPM's paper division which transferred a portion of its R&D facilities to Melbourne. The apparent increase of 55 managerial positions in Table 6.4 is actually the result of a restructuring of internal reporting structures within Comalco and EZ. Within both organisations, separate functional segments of the firm involving administrative (eg. personnel and purchasing) and production (eg. casting and leaching) activities have been restructured into semi-autonomous departments. As a result, the number of 'managers' has increased as the person responsible for each department has been given greater working autonomy and participates in most management decisions at

**Table 6.4: Change in Employment Type Within Tasmanian Manufacturing, 1980-1985** <sup>1</sup>

Ownership	Managerial		Clerical		Production		Research & development		Other <sup>2</sup>		Total	
	Net change	% change	Net change	% change	Net change	% change	Net change	% change	Net change	% change	Net change	% change
4 largest <sup>3</sup>	55	30	-70	-13	-488	-10	-14	-9	-354	-12	-871	-11
Other non-local	6	1	-25	-3	-164	-3	19	27	49	3	-115	-2
Local <sup>4</sup>	13	2	83	9	626	11	11	55	115	7	848	9
Total	74	6	-12	-1	-26	-1	16	8	-190	-3	-138	-1

<sup>1</sup> Includes full-time equivalents for part-time employees.

<sup>2</sup> Includes transport, engineering, maintenance and retail employees.

<sup>3</sup> APPM, ANM, EZ and Comalco.

<sup>4</sup> Figures for locally owned firms employing less than 100 are based on a sample (see Table 2.4)

Source: Tasmanian Manufacturing Survey, 1986.

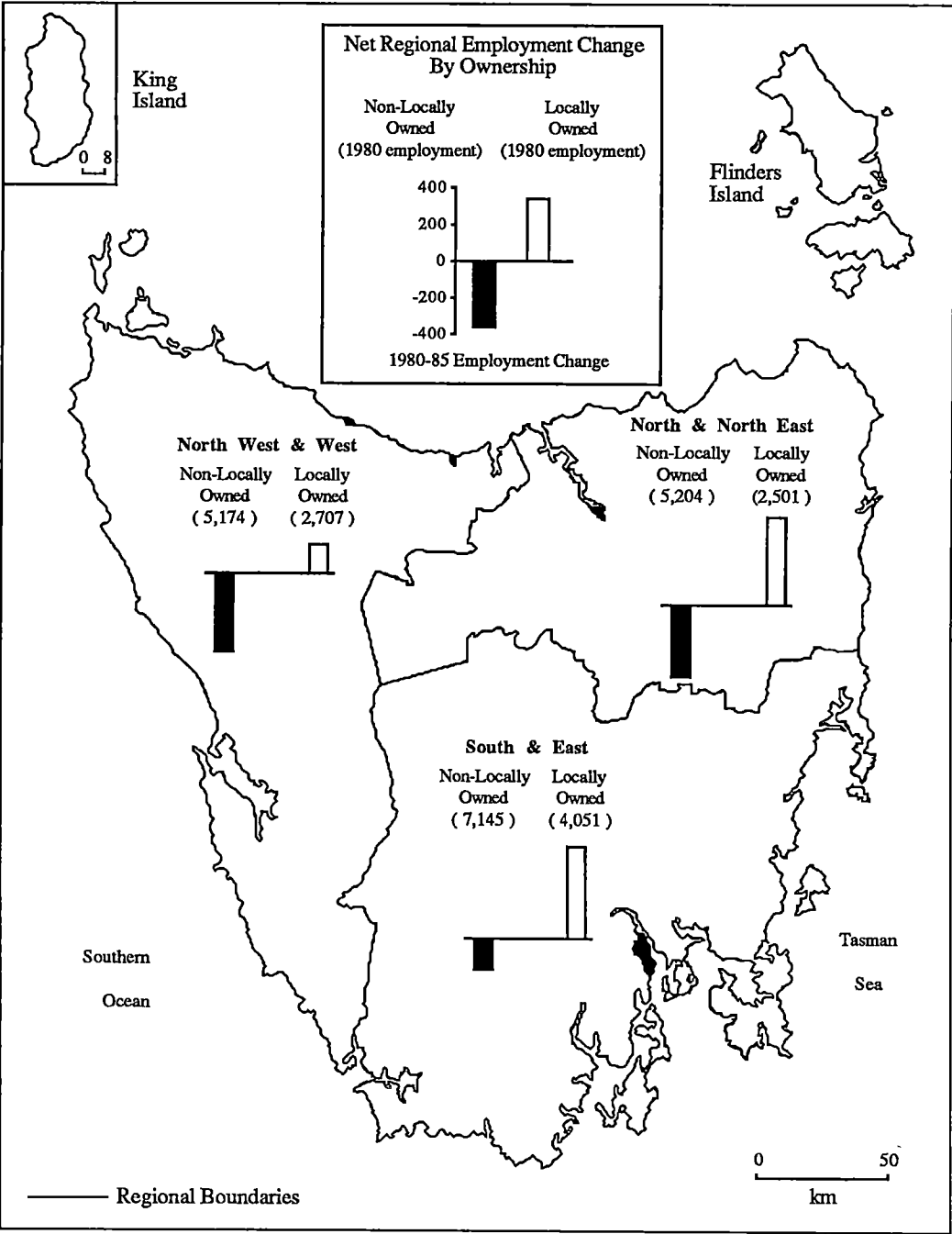
the plant level.

Net employment loss among the state's other 81 non-locally owned firms has occurred in areas of both production and administration (Table 6.4). Employment loss within production activities was greatest in medium-sized laggard segments selling within the local market, and large resource-based and filtered-down organisations manufacturing for export markets. Employment within Tasmania's indigenous firm sector increased within each occupational category, totalling 848 persons (including both full and part-time) between 1980 and 1985. The majority of net employment growth (626 jobs) within the indigenous sector was in production activities. In addition, 115 jobs were created in areas outside production and administration, as a number of both owner-managed and manager-operated enterprises undertook expansion in areas of retailing, wholesaling, and trade services.

### Regional Change

Decentralisation and specialisation within Tasmania's manufacturing economy have contributed to the vulnerability of the state's three principal industrial regions (focusing upon Hobart, Launceston and Burnie/Devonport) to changes in a few particular industries which control a large portion of the local workforce (Wilde, 1981a; Figure 6.7). Evidence from the manufacturing survey indicates that total manufacturing employment has remained stable within the southern and northern regions of the state while firms in the north west region have decreased full-time employment by 6 per cent (466 jobs) and generated significantly fewer part-time positions than firms in the other two regions. This is not surprising, given that manufacturing in the north west region is characterised by higher levels of external ownership, resource-based industries and a greater percentage of large firms relative to other regions of the state. In fact, a mere six resource-based enterprises control almost 60 per cent of the region's manufacturing workforce. Since 1980, major employment losses have occurred within the region's dairying, paper and meat products industries. Another important industry, vegetable processing, has maintained employment levels since 1980 despite increasing competition from New

**Figure 6.7: Regional Employment Change in Tasmanian Manufacturing, 1980-1985**



Source: Tasmanian Manufacturing Survey, 1986

Zealand producers in mainland markets. In 1987, two years after the thesis interviews were completed, the Canadian-based McCains Ltd established a second vegetable processing facility in the north west region, employing nearly 100 persons.

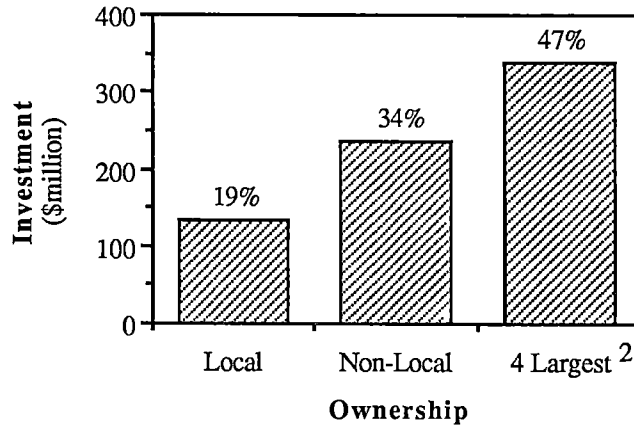
The stability of employment within the northern and southern regions of the state is attributable largely to the higher number of small indigenous firms and less severe job loss among non-locally owned enterprises. In northern Tasmania, indigenous employment growth of over 500 persons was concentrated in food products, fabricated metals and clothing industries. Employment loss among non-locally owned enterprises was heaviest in textiles, basic metals and transport equipment industries, all of which are dependent upon mainland markets characterised by increasing foreign competition since 1980. In the south of the state, indigenous employment growth (493 persons) was highest in food products and wood products industries, including 118 persons employed in timber and hardware retailing, by manufacturers expanding their retail operations in the Hobart area.

### **6.3.2 Capital Investment**

A substantial section in the manufacturing survey was devoted to questions regarding the level and nature of capital investment (including investment in land, buildings, machinery, transport and ancillary equipment) between 1980 and 1985 (see Appendix 1). Over the five year period, investment in the state's manufacturing sector totalled an estimated \$705 million. The state's 85 non-locally owned firms accounted for 81 per cent of this investment, while the 374 indigenous manufacturers accounted only 19 per cent. In fact, Tasmania's four largest resource-based enterprises were responsible for 47 per cent of all manufacturing investment (Figure 6.8). The substantial proportion of investment undertaken by these four firms over the five year period highlights both their massive level of capitalisation in relation to other manufacturers, and their decision to invest heavily in new technology as a means of reducing unit production costs and maintaining their international competitiveness. At a local level, a number of smaller (and primarily locally owned) manufacturers and service firms are dependent upon the four major companies for a considerable portion of their annual trading income. In particular, local firms engaged in

activities including engineering and surveying, electrical design and materials supply, and plastic fabrication are frequently nominated as contractors and suppliers for portions of major developments undertaken by each of the four largest enterprises.

**Figure 6.8: Capital Investment in Tasmanian Manufacturing, 1980-1985<sup>1</sup>**



<sup>1</sup> Includes total investment in land, buildings, machinery transport and ancillary equipment.

<sup>2</sup> APPM, ANM, EZ and Comalco

Source: Tasmanian Manufacturing Survey, 1986

For example, one of APPM's major investments between 1980 and 1982 involved the conversion of its Burnie mill's steam generating plant from oil fuels to a combination of coal and woodwaste firing. The completion of that project alone involved contracts totaling \$23 million awarded to 28 Tasmanian-based manufacturers and suppliers.

Together, the state's four largest manufacturers and 34 other intermediate operating segments accounted for 67 per cent of all investment over the period (Table 6.5). By comparison, only 14 per cent of total investment was undertaken by the 47 laggard non-locally owned enterprises. By industry, the percentage of investment undertaken by non-locally owned enterprises was highest in paper, basic metals, chemicals, textiles, and food products industries (Table 6.6). With the exception of the food and beverage industry, investment within each of these industrial groups was dominated by fewer than 10 non-locally owned enterprises. The survey results suggest that among indigenous firms, 62 per cent of all investment (\$11.8 million) was undertaken by the state's 65 manager-operated enterprises (Table 6.5). The largest single group of firms, Tasmania's 309

**Table 6.5: Capital Investment in Tasmanian Manufacturing by Enterprise Segment, 1980-1985**

Enterprise Segment	Number of Enterprises	Investment <sup>1</sup> (\$million)	% of Total Investment
<b>Locally-Owned <sup>2</sup></b>			
Owner-Managed	309	50.695	7.2
Manager-Operated	65	83.347	11.8
Total	374	134.042	19.0
<b>Non-Locally Owned</b>			
Laggard	47	98.770	14.0
Intermediate	38	472.572	67.0
Total	85	571.342	81.0
<b>Total Manufacturing</b>	<b>459</b>	<b>705.384</b>	<b>100.0</b>

<sup>1</sup> Includes total investment in land, buildings, machinery, transport and ancillary equipment. Figures do not include equity investment.

<sup>2</sup> Figures for locally owned firms employing less than 100 are based on a sample (see Table 2.4)

Source: Tasmanian Manufacturing Survey, 1986.



**Table 6.6: Capital Investment by Manufacturing Industry Within Tasmania, 1980-1985**

Industry	Number of Enterprises		Investment <sup>1</sup>		% of Total Investment	
	Locally <sup>2</sup> Owned	Non-Locally Owned	( \$ Million )	%	Locally <sup>2</sup> Owned	Non-Locally Owned
Paper, paper products, publishing & printing	27	6	231.367	33	5	95
Basic metal products	11	4	114.314	16	1	99
Wood, wood products, & furniture	67	10	103.713	15	33	67
Food & beverage products	54	19	101.858	14	28	72
Chemicals, petroleum and coal products	21	9	48.188	7	5	95
Non-metallic mineral products	42	7	44.912	7	76	24
Textiles	9	5	26.326	4	1	99
Transport equipment	21	1	12.497	2	42	58
Fabricated metal products	38	13	10.673	2	45	55
Miscellaneous manufactured products	35	7	6.761	1	86	14
Clothing & footwear	8	1	3.413	-	88	12
Industrial machinery & equipment	41	3	2.181	-	89	11
Total manufacturing	374	85	706.203	100	19	81

<sup>1</sup> Includes total investment in land, buildings, machinery, transport and ancillary equipment.  
Figures do not include equity investment.

<sup>2</sup> Figures for locally owned firms employing less than 100 are based upon a sample (see Table 2.4).

Source: Tasmanian Manufacturing Survey, 1986.

indigenous owner-managed operations, invested only \$50.7 million over the period, representing less than 8 per cent of total investment within the state's manufacturing sector. Moreover, indigenous capital accounted for more than one-half of total investment within only four of the 12 primary industry divisions (Table 6.6). Included among these are the three lowest ranking industries in terms of total investment over the five year period; miscellaneous manufactured products (ie. plastics, advertising signs, rubber and leather products), clothing and footwear, and industrial machinery and equipment.

### **6.3.3 Volume of Manufactured Output**

Due to the diverse industrial structure of the state's manufacturing economy, changes in the volume of manufactured output can be observed, at an aggregate scale, only in terms of the percentage change between 1980 and 1985. Evidence from the survey of manufacturers indicates that, as a group, indigenous firms performed somewhat better than those non-locally owned. In particular, one-quarter of all non-locally owned laggard operations decreased their level of output by more than 20 per cent over the period (Table 6.7). By comparison, over one-half of all intermediate segments increased their manufactured output by more than 20 per cent. Within the indigenous firm sector, manager-operated enterprises performed slightly better than owner-managed operations on a percentage change basis. On a net change basis, however, it is virtually certain that this difference is even greater since nearly 60 per cent (N=182) of owner-managed firms employ fewer than 10 persons and any large percentage change figures are likely to reflect relatively moderate increases in physical output.

The processes underlying strategies of growth and decline within the 166 manufacturing enterprises included in the study, and structural changes occurring within the state's manufacturing economy as a whole having been described, the final chapter summarises the thesis research. Discussion highlights the position of Tasmania's manufacturing economy within the context of the Australian and capitalist production systems, the level and nature of power relationships within indigenous and external capital, and the dominant strategies and constraints influencing change within the local

**Table 6.7: Change in the Volume of Manufactured Output, 1980-1985**

Enterprise Segment	Percentage Change in Manufactured Output							
	More Than 20% Decrease		Between -19 and 19%		More Than 20% Increase		Total	
	Enterprises No.	%	Enterprises No.	%	Enterprises No.	%	Enterprises No.	%
<b>Locally-Owned <sup>1</sup></b>								
Owner-Managed	33	10.6	150	48.5	126	40.9	309	100
Manager-Operated	2	3.2	20	30.7	43	66.1	65	100
Total	35	9.5	170	45.4	169	45.1	374	100
<b>Non-Locally Owned</b>								
Laggard	12	25.5	22	46.8	13	27.7	47	100
Intermediate	7	18.4	11	28.9	20	52.7 *	38	100
Total	19	22.3	33	38.8	29	38.9	85	100
<b>Total Manufacturing</b>	<b>54</b>	<b>12.7</b>	<b>203</b>	<b>44.2</b>	<b>198</b>	<b>43.1</b>	<b>459</b>	<b>100</b>

<sup>1</sup> Figures for locally owned firms employing less than 100 are based on a sample (see Table 2.4).

Source: Tasmanian Manufacturing Survey, 1986.

state region. Finally, comments are made regarding the importance of a process-based approach to empirical studies within dynamic capitalist systems, and the utility of conceptual frameworks such as Taylor and Thrift's (1981a,1982a) segmented economy approach to study undertaken at a regional level.

**CHAPTER 7**  
**REVIEW AND IMPLICATIONS**  
**OF THE RESEARCH**

## **7.1 THEORETICAL STRUCTURE OF THE RESEARCH**

The objective of this thesis has been to analyse Tasmania's manufacturing sector in terms of enterprise size, location of ownership and control, and other attributes of enterprises which are relevant to the understanding of management behaviour and strategy within Tasmania between 1980 and 1985.

To satisfy this objective, it was necessary that the study was grounded in theories which most adequately conceptualise the dynamics of capitalist production and the ways in which individual business organisations interact within the capitalist economic system. Hence, research has accepted the basic elements of Marx's conceptualisation of the capitalist system, and developments of his position, as the most useful framework to examine the nature of capitalist production. Neo-Marxist theory is extremely useful in an analysis of capitalist economies, as it emphasises important dynamic issues of crisis, conflict, and power relations between different social classes. Individuals and groups having control over the ownership and possession of capital are able to assert their dominance over others by employing them as wage labour and accumulating the surplus-value generated during the production process. Given that the accumulation of capital is both the driving force within capitalist production, and determines the nature of unequal power relationships between social classes, the way in which production is organised over space is critical to the understanding of economic and social disparities between regions.

Only recently have studies made a valid attempt to investigate regional disparities from a neo-Marxist perspective (for example, see Clarke, 1982a, 1984b; Dargavel, 1984; Fagan, 1984). Each of these studies has adopted a process-based approach to investigation, emphasising the specific historic, social and spatial mechanisms producing change within regional economies. Through a process-based approach, research is able to provide a balance between the influence of economic and social structures, and the actions of individual agents within capitalist economies. Thus, the abstract power relations

developed at a theoretical level, such as those between capital and labour, are examined in relation to the specific conditions in which they operate. By undertaking a process-based approach of the investigation of manufacturing enterprises within Tasmania, this thesis builds upon the developing literature of theoretically-informed studies which focus upon the role of enterprise managers as individual and dynamic actors in generating structural change.

As a conceptual structure through which to undertake this process-based approach to business organisations within the study area, the segmented economy framework developed by Taylor and Thrift (1981a, 1982a) has been expanded by focusing upon the dynamics of a regional manufacturing economy. Through a segmented economy framework, which recognises the importance of power relationships within and between business enterprises, research has been able to identify many of the concrete forms through which the more general economic and social relations of production are operating within the study area. In the Tasmanian study, the focus of research has been placed upon the local operational unit, and the decisions affecting it, rather than on the larger business organisation at a national level. Empirical research has centred upon three levels of enterprise relations, including those between Tasmanian establishments of multi-site enterprises, those between individual business enterprises, and relations between non-locally owned enterprises and establishments of their parent organisation outside the state. At each level of investigation, research has highlighted the nature and implications of power relations influencing the growth of Tasmanian manufacturing enterprises.

## **7.2 MANUFACTURING IN TASMANIA**

### **7.2.1 Summary of Empirical Research**

As a background to the local study, it has been demonstrated that since the mid-1970s, changes taking place within the Tasmanian economy have largely reflected those occurring at the national and international levels. In particular, employment in service industries has risen, manufacturing has declined in importance, and the overall rate of

growth in trade and investment has fallen well below levels achieved during the 1960s. The current structure of Tasmania's economy, and the problems associated with it, reflect the history of Australian economic development in which Tasmania has always played a minor role. Both Tasmania's narrowly-based industrial structure and reliance upon resource-based activities have tended to exacerbate instability within the local capitalist environment.

### Enterprise Differentiation

Because of Tasmania's reliance upon resource-based industries, and its non-metropolitan character in general, its economy differs greatly from other regional economies in which most research on firm size, ownership and enterprise segmentation has been undertaken. The current structure of Tasmania's manufacturing sector is one in which the numerically dominant unit of production is the small indigenous firm. Indigenous manufacturers are often engaged in a number of functions outside production including retailing, wholesaling, installation and maintenance activities. Empirical research has suggested that, within Tasmania, it is difficult to differentiate indigenous firms on the basis of the current pattern of segmentation described by Taylor and Thrift (1981a, 1982a; see Figure 1.4). In particular, many small indigenous firms which could be classified as laggard are also operating as niche fillers or 'loyal opposition' firms to larger business organisations within the local market (see section 5.2.1). Differentiation of indigenous firms on the basis of owner-managed and manager-operated enterprises was found to be a much more useful causal classification. Most indigenous firms are owner-managed, operating from a single establishment and manufacturing non-resource based products which are sold in only one of the state's three regional markets. A smaller number of indigenous manufacturing firms are manager-operated. In contrast to most owner-managed firms, manager-operated enterprises are typically larger, and contain a division of authority in which individual managers possess specialised skills and are responsible for only a particular segment of the overall process of accumulation.



The majority of the state's manufacturing workforce is employed by a few large, and predominantly non-locally owned, enterprises. Most of these large enterprises manufacture resource-based products for markets outside Tasmania. Non-locally owned firms have been differentiated in terms of Taylor and Thrift's (1981a, 1982a) conceptualisation of segmentation within large business organisations. In identifying Tasmanian enterprises in terms of their role within the parent organisation to which they belong, none of the state's non-locally owned firms was classified as a leader operating segment. Over one-half of the state's non-locally owned enterprises are laggard segments of their parent organisation. Such segments are typically small to medium-sized operations manufacturing for the limited local market. Relative to other branches of the parent organisation outside Tasmania, the state's laggard firms are generally characterised by lower levels of capitalisation, sales volumes, product independence and profits. In addition, laggard firms typically maintain low levels of visibility within their controlling organisation. In contrast, intermediate operating segments maintain a much higher degree of visibility within the parent company, as they typically account for a higher proportion of both group capitalisation and sales volume. Compared to laggard segments, intermediate firms also play a greater role in the overall process of accumulation within their parent organisation, as they generate higher rates of profit.

### Power Relations

Three levels of power relations within the state's manufacturing sector have been identified. First, the examination of power relations between establishments of multi-site Tasmanian enterprises demonstrated that branch establishments of both indigenous and non-locally owned enterprises possess only minimal power within the Tasmanian operation. In general, indigenous and non-local branches are both small and functionally dependent upon the Tasmanian head office for their operational resources. In terms of decision-making, branch managers are granted virtually no autonomy in key areas relating to the design, production, pricing and marketing of goods manufactured. In addition, branch management has virtually no control over the allocation of investment finance

within the Tasmanian operation. Control held at the branch level is primarily restricted to routine decisions in areas such as stock levels, labour replacement, and the provision of trade services within the local area.

Second, the examination of inter-organisational power relations within the state's manufacturing sector focused upon the nature of subcontract, franchise, licence and market arrangements between enterprises. Such relations within Tasmania differ markedly from those identified elsewhere (Clarke, 1979; Storey, 1982; Mason, 1984; Imrie, 1986; Duché and Savey, 1987). In particular, the operations of most small and medium-sized enterprises are not influenced by operating linkages established with larger firms. In part, the lack of operational linkages between the two groups is influenced by their very different product structures, with many indigenous firms manufacturing non-resource based goods for the local market and many non-locally owned enterprises engaged in resource-based manufacture for markets outside Tasmania. Thus, relatively few opportunities exist for the development of operational linkages between small indigenous and large non-locally owned firms. Moreover, few small enterprises possess the specialist skills required by larger organisations, and most large firms utilise only standard production technologies which are unlikely to be externalised to indigenous capital. Most subcontract arrangements are informal agreements between small to medium-sized indigenous firms. Although many indigenous and non-locally owned firms are engaged in either formal or informal subcontract, franchise or licence agreements, the power networks resulting from these relationships are minimal as most firms are not reliant upon such activities for a large portion of their total operating turnover. Research has demonstrated, however, that a few small, and predominantly non-locally owned, manufacturers are linked to large firms through various market dependency relationships. For most of these small companies, the loss of only one major customer would be likely to result in the enterprise closing its local production operations.

Third, power relations between non-locally owned enterprises and their external head offices have been assessed in terms of the control maintained by local management over the relations of economic ownership and possession. Survey evidence demonstrated

that the majority of local managers are given minimal control over key functions involving production, labour, investment and the accumulation of capital. The absence of such functions at the local level suggests that most non-locally owned enterprises clearly hold a subordinate position within their parent organisation. Not surprisingly, local autonomy in areas of marketing is higher in laggard than intermediate segments since laggard operations are generally selling within the stable Tasmanian market. Both laggard and intermediate segments, however, are largely dependent upon their parent companies for the provision of all investment finance. The general pattern of power structures has changed very little within non-locally owned organisations since 1980. Most shifts of control functions into and out of Tasmania between 1980 and 1985 involved routine functions in areas of accounting, with a fewer number of shifts involving managerial, production, and technical activities.

#### Strategies of Indigenous and External Capital

The strategies adopted by indigenous and non-locally owned enterprises between 1980 and 1985 reflect both the goals and abilities of enterprise managers, and the constraints imposed by the capitalist system in which firms operate. The constraints to growth influencing the Tasmanian operations of indigenous and external capital are highly complex. Within small owner-managed enterprises, constraints internal to the firm such as management ability, negative perceptions of growth and the limited ability to raise finance capital, are most critical to the long-term development of the operation. In particular, survey evidence indicates that most owner-managers are content with the level of profits available from existing products and services offered by the firm within their local regional market. For many of these enterprises, expansion of existing activities would be seen as a threat to the autonomy presently maintained by the owner-manager. Although many medium and large-sized indigenous firms are thus constrained by negative perceptions of growth among persons maintaining control over the operation, a number of other constraints are equally important. They include the limited potential for growth within the local market and difficulties involved in servicing markets outside the state. As

small and medium-sized manufacturers, most indigenous firms are unable to generate the volume of manufactured product necessary to trade profitably in external markets. Most indigenous firms which do sell outside the state have little control over the marketing of their products, as they sell goods primarily or entirely through wholesale agents.

Among non-locally owned enterprises, constraints to growth are most strongly associated with the lack of control functions held by local management. Within all but a few enterprises, decisions regarding long-term product and market developments are made by managers of the parent firm located outside Tasmania, with little or no input from executives of the Tasmanian enterprise. Small-scale developments initiated by local management are also constrained by the imbalance of power between local and external offices of the parent firm, as Tasmanian operations are dependent upon their parent organisation for virtually all capital funding. In addition to the constraints imposed upon local managers by their external head offices, the small size of local product markets limits expansion among most laggard segments. Moreover, several intermediate resource-based segments manufacturing for export markets are constrained by limited or declining stocks in forestry and sea fisheries.

Given the constraints facing indigenous and external capital, a wide range of strategies has been adopted within the local manufacturing economy since 1980. The largest number of both locally and non-locally owned enterprises adopted dominant strategies aimed at maintaining their existing level of operations, while undertaking only minimal investment in production between 1980 and 1985. A few large export-oriented firms, however, have maintained their existing operations while also investing heavily in process technology as a means to reduce unit production costs. While the investment undertaken by these companies is seen as necessary in order to increase both the efficiency of local production and the organisation's competitiveness in markets outside Tasmania, the high rate of associated job loss within these firms has reduced considerably the opportunities for employment within the state's three regional labour markets.

A smaller number of indigenous and non-locally owned enterprises adopted dominant strategies which were expansion-based. Among indigenous firms, expansion

was split between production and non-production activities. Expansion within manufacturing focused upon the development of existing markets and products, with only a handful of firms entering new markets or diversifying their range of manufactured products. Expansion outside manufacturing concentrated upon the development of retail activities, primarily among medium and large-sized manager-operated organisations. As a minor strategy, expansion of trade service activities was undertaken by several indigenous firms. In contrast, expansion among non-locally owned enterprises was virtually restricted to production-based activities. The failure of many small and medium-sized laggard segments to expand their trade service base has adversely affected their competitiveness against indigenous firms within the local market.

The least dominant strategy adopted by indigenous and non-locally owned firms between 1980 and 1985 was rationalisation involving a reduction in the level of activities undertaken in Tasmania. Most rationalisation undertaken by indigenous firms involved the closure of small branch establishments. The majority of rationalisation within the state's non-locally owned sector took place among medium-sized laggard segments competing unsuccessfully against indigenous capital within the local durable goods market.

### Structural Change

Aggregate patterns of structural change within the state's manufacturing economy between 1980 and 1985 reflect the underlying strategies adopted by indigenous and external capital. While the total number of persons employed within manufacturing fell only marginally throughout the study period, marked differences occurred in employment performance when measured in terms of ownership, firm size, and the provision of full versus part-time work within the local economy. In particular, strategies of expansion within indigenous firms have resulted in increasing employment levels within both owner-managed and manager-operated enterprises oriented toward the local market. Conversely, strategies of rationalisation and capital intensification of existing operations have had a negative effect upon employment within both laggard and intermediate non-locally owned

operations. In addition, several of Tasmania's larger export-oriented indigenous manufacturers have reduced employment over the period, as they have adopted strategies similar to those of large non-locally owned firms operating in highly competitive external markets.

Part-time employment within manufacturing firms increased markedly between 1980 and 1985, with much of this growth taking place in non-production activities. From management's point of view, part-time (and to a lesser extent casual) employment has become increasingly attractive during the current phase of restructuring within the local, national and global manufacturing economies. In particular, employment on-costs such as redundancy payments are reduced through the provision of part-time work. Part-time work has also increased as many large indigenous and non-locally owned firms have transferred some workers to part-time employment as an alternative to redundancy.

Capital investment within the state's manufacturing sector between 1980 and 1985 was dominated by a few large non-locally owned enterprises. The concentration of investment within externally-owned firms highlights the strategies of capital intensification adopted by intermediate segments manufacturing within highly competitive external markets. Within most non-locally owned laggard segments, and small to medium-sized owner-managed indigenous firms, the majority of investment was directed toward the replacement of outdated capital equipment without increasing the level of technology employed in production operations. Overall, a higher percentage of indigenous than non-locally owned enterprises increased their level of manufactured output between 1980 and 1985. Within the indigenous firm sector, in terms of increased physical output, manager-operated enterprises performed better than those which are owner-managed. In addition, non-locally owned intermediate branch plants, manufacturing for markets outside Tasmania, performed better than laggard branches dependent upon sales of manufactured products within the limited local market.

#### **7.2.2 Implications for Production, Employment and Government Policies of Regional Welfare**

The Tasmanian government, like those in other Australian states and many

elsewhere, has always considered economic growth and employment to be a major responsibility. A considerable element of this, however, is that Australian state governments have always competed against one another in their attempt to attract economic development and employment growth to their states. Within this context, Tasmanian governments have encouraged the development of a manufacturing economy dominated largely by branch plants. In particular, state government policies based upon the development of hydro-electric power and the use of Tasmania's natural resources were successful in providing employment within the state's manufacturing sector before the mid-1960s (see section 3.3). Virtually every large non-locally owned manufacturing enterprise established during the period of hydro-industrialisation shed employment between 1980 and 1985. Although it is certain that Tasmania's few existing large resource-based enterprises will continue to employ a large share of the manufacturing workforce in the years to come, their relative importance is likely to decline further as the majority of these firms continue to reduce employment while restructuring their production operations in an attempt to return to more profitable conditions of accumulation. From the perspective of the firm, employment reduction represents an integral part of the restructuring process.

Agencies of the Tasmanian government responsible for the state's economic development must adopt new strategies in light of recent corporate responses to crises within Australian manufacturing. In particular, governments must accept and support capital's attempt to increase the efficiency of its operations as a result of increasing levels of competition within both international and the Australian domestic markets. While job loss may be an inevitable outcome of the immediate restructuring process, smaller and more efficient production operations are certainly more attractive, to workers and government, than plant closures.

As capital continues to increase the efficiency of its production activities, governments are likely to increase their role as active agents in the restructuring process itself. As indicated in section 3.1.3, the Australian federal government has taken steps in this direction through the establishment of industry development plans within the automotive, steel, heavy engineering, textiles, and clothing and footwear industries.

Taylor (1987b) has suggested that governments are likely to adopt strategies, at a regional level, whereby capital is granted assistance in accordance to specific contractual conditions. Under such conditions, the level of government assistance would be firmly linked to the performance of the enterprise, both in terms of its direct employment and its contribution to the social welfare of the local economy. This approach offers a wide range of potential benefits to regions such as Tasmania which are rich in terms of natural resources, contain manufacturing sectors dominated by externally-owned firms, and have been unable to encourage the development of a manufacturing economy which produces a high percentage of finished goods.

Within Tasmania, small and medium-sized indigenous firms have clearly been the most stable group of employers since 1980. As large indigenous and non-locally owned firms continue to shed employment, it appears that the majority of future employment growth within the state's manufacturing sector is likely to come from the indigenous firm sector. The indigenous sector, however, is only likely to generate significant employment growth if it increases dramatically its participation in external markets. An important feature of indigenous employment growth between 1980 and 1985 is that it occurred either primarily within local product markets relatively sheltered from competition provided by mainland producers, or in areas outside manufacturing. The current participation in markets outside Tasmania by indigenous firms is generally very low, and those which do export have tended to follow employment strategies similar to those adopted by external capital.

While it appears that Tasmania's indigenous sector holds the best prospects for future employment growth, it would be foolish to suggest that development incentives should be targeted solely to these firms. Evidence from the manufacturing survey highlights a number of problems likely to arise from a policy focus dependent solely upon small firms. First, most managers of small firms are satisfied with profits available within the local market, and do not want to expand markedly the scale of their operation. Second, by themselves, small firms are typically unable to generate the volume of manufactured output necessary to gain sufficient exposure and operate profitably within



external markets. Furthermore, the strong desire by many owner-managers to retain full control over their operation means that few are willing either to manufacture or market goods on a collective basis, with other small producers, as a means to generate the volume of output necessary to compete in markets outside the state. Third, survey evidence clearly highlights the lack of managerial expertise in most small firms. Given the constraints to growth relating to the physical limitations of small companies, managers of small firms must possess the ability to recognise potential markets and organise the firm's limited resources in such a way as to trade profitably within those markets. Finally, from a political perspective, small firm policies are problematic in that significant employment growth can only be realised on a long-term basis, often beyond the periods of leadership of the political parties which create them.

Within regions such as Tasmania, governments acting as agents in the restructuring process must certainly seek to develop the local potential of both indigenous and externally-based capital. In order for governments to implement regional policies which are effective in promoting the efficient use of capital resources on the one hand, and employment stability on the other, regional economies must be continually monitored at the enterprise level so that processes underlying growth and decline within the local capitalist system can be identified. Only after identifying these relevant processes can policies be constructed which seriously address the causes rather than the symptoms of regional economic decline.

### **7.3 CONCLUDING REMARKS**

An inevitable outcome of any research project is that it is unable to answer all the questions one would wish. One of the early decisions in the current research was to interview Tasmanian managers of all large and non-locally owned firms, but the time available precluded comprehensive coverage of the state's small and medium-sized indigenous manufacturers. The survey base of this part of the analysis had implications for both extensive generalisation and for intensive conceptualisation of processes. First, it

must be remembered that the range of processes identified in the study reflects only those enterprises included in the manufacturing survey. Although it was suggested in section 6.3 that the processes underlying growth and decline within the small indigenous firms surveyed are believed to be generally representative of most small locally owned manufacturers, aggregate comparisons between indigenous and non-locally owned firms must be made cautiously. The limitations of interviewing only a portion of all Tasmanian manufacturers were minimised by ensuring that all large and the majority of medium-sized enterprises were surveyed. By including these 'prime-mover' firms, the thesis has identified the relevant processes influencing growth among enterprises most important to the development of the local manufacturing economy in the coming decade (Lloyd and Shutt, 1983, p. 25).

The aim of the thesis has been to identify processes operating in a locality and period-specific context, rather than to undertake an analysis oriented toward generalisation and prediction. The dominant processes underlying change within Tasmania's manufacturing sector between 1980 and 1985 reflect, in part, the uniqueness of the state's economy in which resource-based activities represent a major share of manufacturing employment and output, and large business organisations are primarily represented through the establishment of branch plants. Although the processes identified in the current study are based upon an intensive investigation of Tasmanian firms, it is very likely that similar processes are operating in small resource-based economies elsewhere.

Following from this study, future research into the dynamics of regional manufacturing economies could take a number of worthwhile directions. First, additional research could focus upon the nature of organisational and power relationships between small or medium-sized firms. As demonstrated in Chapter 4, most inter-organisational relations within Tasmania's manufacturing sector are between firms of similar size. Previous research has focused almost entirely upon the relations between small and large firms, and has paid only minimal attention to the nature of subcontract and franchise relationships within the small firm sector itself. While the Tasmanian study concluded that such relationships were not important in terms of creating power networks, they were

important in terms of how small and medium-sized firms organise their production and marketing operations within their local area. Second, future research evaluating the implications of non-local ownership within regional economies must emphasise the role of individual branch plants within their parent organisation. Changes taking place within branch plants are likely to reflect a number of processes in addition to those associated with the performance of the plant within the local region. Finally, future studies of manufacturing change must consider the implications of enterprise restructuring for other sectors of the economy. As shown in this study, much of the expansion undertaken by indigenous manufacturing firms within Tasmania has been in activities other than production. Developments outside manufacturing are likely to compete with existing service-based activities within the local economy. Research must try to pinpoint the inter-sectoral movements in employment and output resulting from the restructuring of production capital.

This thesis has attempted to highlight important aspects of enterprise relationships and behaviour which help to explain changing patterns of industrial activity and employment in Tasmania. The adoption of a process-based approach within an explicitly capitalist conceptual framework is considered to be a crucial element in understanding the dynamics of regional economies. Within a capitalist framework the concept of a segmented economy approach to business organisation proved valuable and illuminating rather than restricting. Its extension to an empirical regional study is one of the generally valuable aspects of this thesis, and has provided a basis from which important regional investigation could be undertaken elsewhere.

## REFERENCES

## REFERENCES

- ACI International** (1985) Annual Report, 200 Queen St., Melbourne.
- Adelaide Steamship Company Limited** (1978-1987) Annual Report, 123 Greenhill Rd., Unley, South Australia.
- Adrian, C. and Evans, C.** (1984) 'Borg Warner (Albury Wodonga): The role of a lead firm in a regional economy', In The Geography of Australian Corporate Power. Taylor, M.J. (ed), Croom Helm, Sydney.
- The Age** (1985) 'CAI seeks action on CER problems', 7 September, p. 19.
- Alexander, M.L.** (1983) 'Australia in the capitalist world economy', In State and Economy in Australia. Head, B. (ed), Oxford University Press, Melbourne.
- Alonso, W.** (1968) 'Urban and regional imbalances in economic development', Economic Development and Cultural Change, 17, pp. 1-14.
- Amin, S.** (1976) Unequal Development. The Harvester Press, Sussex.
- Andreff, W.** (1984) 'The international centralization of capital and the reordering of world capitalism', Capital and Class, 22, pp. 59-80.
- ANZAAS** (1982) 'Tasmania's economic future: Prospects and possibilities', Public symposium sponsored by the Australian and New Zealand Association for the Advancement of Science, Tasmanian Division, September 18, Hobart.
- Atkins, D.H.W.** (1973) 'Employment change in branch and parent manufacturing plants in the UK: 1966-1971', Trade Industry, 12, pp. 437-439.
- Australia/Japan Joint Study Group** (1980) 'Australian and Japanese woodpulp industries: Future development and relationship', Australian Government Publishing Service, Canberra.
- The Australian** (1984) 'Car makers face the axe as Hawke remodels industry', 30 May, pp. 1-2.
- (1985) 'EEC has meat trade on edge', 10 September, p. 2.
- (1985) 'Repco chief attacks government's car plan', 30 October, p. 20.
- (1986) 'Comalco posts loss of \$69 million', 1 March, p. 30.
- Australian Bureau of Statistics** (1970-1987) Australian National Accounts, Gross Product by Industry. ABS Catalogue No. 5211.0, Australian Government Publishing Service, Canberra.

- Australian Bureau of Statistics (1983)** Australian Standard Industrial Classification: Vol. 1 - The Classification; Vol. 2 - Alphabetic Index. Australian Government Publishing Service, Canberra.
- Australian Bureau of Statistics (1977-1985)** Foreign Control in Research and Experimental Development: Private Enterprises, Australia. ABS Catalogue No. 5330.0, Australian Government Publishing Service, Canberra.
- Australian Bureau of Statistics (1970-1986)** Tasmanian Year Book. Government Printer, Hobart.
- Australian Bureau of Statistics (1970-1986)** Yearbook Australia. Australian Government Publishing Service, Canberra.
- Australian Manufacturing Council (1986)** Future Directions for Australian Manufacturing Industry: A Broad Strategy Framework. Australian Government Publishing Service, Canberra.
- Australian Newsprint Mills Limited (1985)** 'Company profile', 185 Liverpool St., Hobart.
- Averitt, R.T. (1968)** The Dual Economy: The Dynamics of American Industry Structure. W.W. Norton, New York.
- Bacon, R. and Eltis, W. (1976)** Britain's Economic Problem: Too Few Producers. MacMillan, London.
- Balkay, B. (1987)** 'Locational issues in world aluminium: Past, present, future', In Industrial Change in Advanced Economies. Hamilton, F.E.I. (ed), Croom Helm, London.
- Barkley, D.L. (1978)** 'Plant ownership characteristics and the locational stability of rural Iowa manufacturers', Land Economics, 54, pp. 92-99.
- Barlow, A.T. (1972)** 'A comment on the concentration of manufacturing corporations and regional growth', Area, 4, pp. 273-75.
- Baron, J.N. and Bielby, W.T. (1980)** 'Bringing the firms back in: Stratification, segmentation, and the organization of work', American Sociological Review, 45, pp. 73-65.
- Beck, E.M., Horan, P.M, and Tolbert, C.M. (1978)** 'Stratification in a dual economy: A sectoral model of earnings determination', American Sociological Review, 43, pp. 70-20.
- Berger, S. and Piore, M.J. (1980)** Dualism and Discontinuity in Industrial Societies, Cambridge University Press, Cambridge.
- Birch, D.L. (1979)** 'The job generation process', Working Paper, MIT Program on Neighborhood and Regional Change, Cambridge, Mass.
- Bluestone, B., Murphy, W.M., and Stevenson, M. (1973)** 'Low wages and the working poor', Institute of Labour and Industrial Relations, The University of Michigan, Ann Arbor.
- Boral Limited (1985)** Annual Report, 6-10 O'Connell St., Sydney.

- Borts, G.H. and Stein, J.L.** (1964) Economic Growth in a Free Market. Harper and Row, New York.
- Bowman, D.M.J.S.** (1981) 'The use of Tasmanian forests', Wilderness, Journal of the Tasmanian Wilderness Society, 17, pp. 8-11.
- Bradbury, J.H.** (1985) 'Regional and industrial restructuring processes in the new international division of labour', Progress in Human Geography, 9, pp. 38-63.
- Britton, J.N.H.** (1974) 'Environmental adaption of industrial plants: Service linkages, locational environment and organisation', In Spatial Perspectives on Industrial Organisation and Decision-Making. Hamilton, F.E.I. (ed), Wiley, London.
- Broken Hill Proprietary Company Limited** (1975-1987) Annual Report, BHP House, Melbourne.
- Brough, R.** (1970) 'Business failures in England and Wales', Business Ratios, 8, p. 11.
- Browett, J.** (1984) 'On the necessity and inevitability of uneven spatial development under capitalism', International Journal of Urban and Regional Research, 8, pp. 155-76.
- Brue, S.L.** (1972) 'Local economic impacts of corporate mergers: The Nebraska experience', New Series No. 43, University of Nebraska, Lincoln.
- (1975) 'Local employment and payroll impacts of corporate mergers', Growth Change, 6, pp. 8-13.
- Bureau of Agricultural Economics** (1986) 'Pulp, paper and paperboard industry', BAE Submission to the Industries Assistance Commission, project no. 51326, Australian Government Publishing Service, Canberra.
- Bureau of Industry Economics** (1978) 'Industrialisation in Asia: Some implications for Australian Industry', Research Report No. 1, Australian Government Publishing Service, Canberra.
- (1985) 'Productivity growth in Australian manufacturing', Information Bulletin No. 8, Australian Government Publishing Service, Canberra.
- (1986) 'Revitalising Australian Industry: The paths and prospects for long term growth', Conference Papers and Proceedings, Sydney, 8-9 April, Australian Government Publishing Service, Canberra.
- (1987) 'Investment in the manufacturing sector: 1959-60 to 1984-85', Occasional Paper No. 3. Australian Government Publishing Service, Canberra.
- Burrows, M. and Town, S.** (1971) 'Office Services in the East Midlands', East Midlands Economic Planning Council.
- Butlin, N.G.** (1962) Australian Domestic Product, Investment and Foreign Borrowing, 1861-1939. Cambridge University Press, Cambridge.
- Cadbury Schweppes Australia Limited** (1982-1987) Annual Report, 636 St. Kilda Rd., Melbourne.
- Callaghan, B.** (1977) Inquiry Into the Structure of Industry and The Employment Situation in Tasmania. Australian Government Publishing Service, Canberra.

- Carroll, B.** (1980) Potlines and People, a History of The Bell Bay Smelter. Comalco Limited, Melbourne.
- Caves, R.E.** (1984) 'Scale, openness, and productivity in manufacturing industries', In Caves, R.E. and Krause, L.B. (eds) The Australian Economy: A View From The North. Allen & Unwin, Sydney.
- Caves, R.E. and Holton, R.H.** (1959) The Canadian Economy: Prospect and Retrospect. Harvard University Press, Cambridge, Mass.
- Caves, R.E. and Krause, L.B.** (eds) (1984) The Australian Economy: A View From The North. Allen & Unwin, Sydney.
- Churchill, N.C. and Lewis, V.L.** (1983) 'The five stages of small business growth', Harvard Business Review, 61, pp. 31-47.
- Clarke, G.** (1979) 'Farm amalgamations in Scotland', Scottish Geographical Magazine, 95, pp. 93-107.
- Clarke, I.M.** (1982a) 'The changing international division of labour within ICI', In The Geography of Multinationals. Taylor, M.J. and Thrift, N.J. (eds), Croom Helm, London.
- (1982b) 'Organisational segmentation and the multi-national enterprise: Some preliminary findings', Paper presented to the Corporate Organisations Workshop, conference on the regional impacts of resource development, Regional Science Association, Australian Division, Canberra.
- (1984a) 'The chemicals industry and ICI: The form and impact of global corporations in Australia', In The Geogralphy of Australian Corporate Power. Taylor, M.J. (ed), Croom Helm, Sydney.
- (1984b) 'The organisation of the corporate space economy', Unpublished Ph.D. thesis, Department of Human Geography, The Australian National University, Canberra.
- (1986) 'Labour dynamics and plant centrality in multinational corporations', In Multinationals and the Restructuring of the World Economy. Taylor, M.J., and Thrift, N.J. (eds), Croom Helm, London.
- Coca-Cola Bottlers Limited** (1984-1987) Annual Report, 43 Port Road, Adelaide, South Australia.
- Connell, R.W. and Irving, T.H.** (1980) Class Structure in Australian History: Documents, Narrative and Argument. Longman Cheshire, Melbourne.
- Copeland, T.E.** (1983) Financial Theory and Corporate Policy. Addison-Wesley, Reading, Massachusets.
- Corden, W.M.** (1986) 'Exchange rate depreciation, the current account and wages', In Exchange Rates and the Economy. Nguyen, D.T. and Gregory, R.G. (eds), Centre for Economic Policy Research, Australian National University, Canberra.
- Couche~~ne~~**, T.J. (1978a) 'Avenues of adjustment: The transfer system and regional disparities', In Canadian Confederation at the Crossroads. Walker, M. (ed), Fraser Institute, Vancouver.



- (1978b) 'Regional disparities and national unity', Paper presented at Memorial University of Newfoundland.
- Cross, M.** (1981) New Firm Formation and Regional Development. Gower, Farnborough.
- Crough, G. and Wheelwright, E. L.** (1982) Australia: A Client State. Penguin, Ringwood, Victoria.
- Crum, R.E. and Gudgin, G.** (1976) 'Non-production activities in UK manufacturing industry', University of East Anglia.
- Czamanski, S.** (1972) Regional Science Techniques in Practice: The Case of Nova Scotia. Lexington Books, Toronto.
- Daniels, P.W.** (1983) 'Service industries: Supporting role or centre stage?', Area, 15, pp. 301-9.
- Dargavel, J.** (1984) 'Pulp and paper monopolies in Tasmania', In The Geography of Australian Corporate Power. Taylor, M.J. (ed), Croom Helm, Sydney.
- Department of Transport** (1983) 'Tasmanian Freight Equalisation Scheme: Guidelines for claimants', Australian Government Publishing Service, Canberra.
- Devine, J.** (1980) 'An investment theory of business cycles. Unpublished PhD thesis, Department of Economics, The University of California at Berkeley,
- Dicken, P.** (1976) 'The multiplant business enterprise and geographical space: Some issues in the study of external control and regional development', Regional Studies, 10, pp. 401-12.
- Dixon, C.J., Drakakis-Smith, D., and Watts, H.D.** (eds) (1986) Multinational Corporations and the Third World. Croom Helm, London.
- Dougherty, B.** (1987) 'Supermarket entry fees are pushing out smaller players', Australian Financial Review, 18 August, p. 43.
- Duché, G. and Savey, S.** (1987) 'The rising importance of small and medium-sized firms: Towards a new industrial system?', In Industrial Change in Advanced Economies. Hamilton, F.E.I. (ed), Croom Helm, Sydney.
- Economic Council of Canada** (1977) Living Together: A Study of Regional Disparities. Supply and Services Canada, Ottawa.
- Edwards, C.T.** (1986) 'The heavy engineering industry in Australia', In Revitalising Australian Industry - The Paths and Prospects for Long Term Growth. Bureau of Industry Economics, Conference Papers and Proceedings, Sydney, 8-9 April, Australian Government Publishing Service, Canberra.
- Erickson, R.A.** (1980) 'Corporate organization and manufacturing branch plant closures in non-metropolitan areas', Regional Studies, 14, pp. 491-501.
- Ewer, P., Higgins, W., and Stevens, A.** (1987) Unions and the Future of Australian Manufacturing. Allen & Unwin, Melbourne.
- Ewers, H.J. and Wettman, R.W.** (1980) 'Innovation oriented regional policy', Regional Studies, 14, pp. 161-79.

- EZ Industries Ltd.** (1986) Interview conducted with company management, Hobart, 12 February, 1986.
- Fagan, R.H.** (1984) 'Corporate strategy and regional uneven development in Australia: The case of BHP Ltd.', In The Geography of Australian Corporate Power. Taylor, M.J. (ed), Croom Helm, Sydney.
- Fagan, R.H., and McKay, J.** (1981) 'Organizations, labour and state in changing core-periphery relations: Examples from Australia in the Pacific region', Paper presented to a meeting of the IGU Commission on Industrial Systems, Nyiregyhaza, Hungary.
- Fagan, R.H., McKay, J., and Linge, G.J.R.** (1981) 'Structural change: The international and national context', In Structural Change in Australia: Some Spatial and Organisational Responses. Linge, G.J.R. and McKay, J. (eds), Research School of Pacific Studies, The Australian National University, Canberra.
- Fagan, R.H. and Rich, D.C.** (1986) 'Core and periphery in industrial reorganisation: The case of the Australian food industry', Paper presented to the joint Australia-Canada meeting of industrial geographers, Simon Fraser University, Vancouver.
- Financial Review** (1978) 'ANM's \$155 million Albury mill could compete with Tasman', 29 June, p. 19.
- (1985) 'Government concerned with CER policy rather than impact', 16 April, p. 2.
- (1987) 'Supermarket entry fees are pushing out smaller players', 18 August, p. 43.
- Fine, B.** (1982) Theories of the Capitalist Economy. Edward Arnold Publishers, London.
- Firn, J.R.** (1975) 'External control and regional development: The case of Scotland', Environment and Planning A, 7, pp. 393-414.
- Florence, P.S.** (1948) Investment, location and size of plant. Routledge and Regan Paul, London.
- Fothergill, S. and Gudgin, G.** (1982) Unequal Growth: Urban and Regional Employment Change in the U.K.. Heinemann. London.
- Frank, C.E.J., Miall, R.H.C. and Rees, R.D.** (1984) 'Issues in small firms research of relevance to policy making', Regional Studies, 18, pp. 257-66.
- Friedmann, J.** (1959) 'Regional planning: A problem of spatial integration', Papers and Proceedings of the Regional Science Association, 5, pp. 167-78.
- Fröbel, F., Heinrichs, J., and Kreye, O.** (1980) The New International Division of Labour: Structural Unemployment in Industrialised Countries and Industrialisation in Developing Countries. Cambridge University Press, Cambridge.
- Froud, M.** (1985) 'New and small firms in the UK: An analysis of the policy process', Geoforum, 16, pp. 369-86.
- Gaffikin, F. and Nickson, A.** (1984) Jobs crisis and the multi-nationals: De-industrialisation in the West Midlands, Birmingham Trade Union Resource Centre Ltd., Birmingham.

- Gertler, M.C.** (1986) 'Regional dynamics of manufacturing and non-manufacturing investment in Canada', Regional Studies, 20, pp. 523-34.
- Gibson, K.D. and Horvath, R.J.** (1983a) 'Global capital and the restructuring crisis in Australian Manufacturing', Economic Geography, 59, pp. 178-94.
- (1983b) 'Aspects of a theory of transition within the capitalist mode of production', Environment and Planning D: Society and Space, 1, pp. 121-38.
- Ginsburg, N.** (1957) 'Natural resources and economic development', Annals of the Association of American Geographers, 47, pp. 197-212.
- Goddard, J.B.** (1978) 'The location of non-manufacturing activities within manufacturing industries', In Contemporary Industrialisation. Hamilton, F.E.I. (ed), Longman, London.
- (1981a) 'Problems and prospects of economic development in the Northern Region of England', Discussion Paper No. 36, Centre for Urban and Regional Development Studies, The University of Newcastle upon Tyne.
- (1981b) 'The geographic impact of technological change', Discussion Paper No. 37, Centre for Urban and Regional Development Studies, The University of Newcastle upon Tyne.
- Goddard, J.B. and Pye, R.** (1977) 'Telecommunications and office location', Regional Studies, 11, pp. 19-30.
- Goliath Cement Holdings Limited** (1985-1987) Annual Report, Railton, Tasmania.
- Gore, C.** (1984) Regions in Question: Space, Development Theory and Regional Policy. Methuen, London.
- Gregory, D. and Urry, J.** (eds) (1985) Social Relations and Spatial Structures. Macmillan, London.
- Håkanson, L.** (1979) 'Towards a theory of location and corporate growth', In Hamilton, F.E.I. and Linge, G.J.R. (eds), Spatial Analysis, Industry and the Industrial Environment: Progress in Research and Applications. Wiley, Chichester.
- Hamilton, C.** (1980) 'Capital and labor in the Australian whitegoods industry', Journal of Australian Political Economy, 7, pp. 18-27.
- Hamilton, F.E.I.** (1978) 'The changing milieu of spatial industrial research', In Hamilton, F.E.I. (ed), Contemporary Industrialization: Spatial Analysis and Regional Development. Longman, London.
- (ed), (1987) Industrial Change in Advanced Economies. Croom Helm, London.
- Handy, C.** (1984) The Future of Work. Basil Blackwell, Oxford.
- Hansen, N.M.** (1974) Public Policy and Regional Economic Development: The Experience of Nine Western Countries. Ballinger Publishing, Cambridge, Mass.
- Hanson, P.H.** (1985) 'Manufacturing linkages in Launceston: A study of a peripherally located provincial service centre and the implications for linkage development in capitalist economies', Unpublished PhD thesis, Department of Geography, The University of Tasmania, Hobart.

- Hanson, P.H. and Wilde, P.D.** (1986) 'Enterprise strategy in the periphery', Paper presented at the conference of the IGU Commission on Industrial Change, Chinchón, Spain.
- (1988) 'Manufacturing structure in a provincial city: Towards an understanding of corporate processes', (forthcoming)
- Harvey, D.** (1975) 'The geography of capitalist accumulation: A reconstruction of the Marxian theory', Antipode, 7, pp. 9-21.
- (1982) The Limits to Capital. Basil Blackwell, Oxford.
- Hayter, R.** (1976) 'Corporate strategies and industrial change in the Canadian forest product industries', Geographical Review, 66, pp. 209-28.
- (1981) 'Patterns of entry and the role of foreign-controlled investments in the forest product sector of British Columbia', Tijdschrift Voor Economische en Sociale Geografie, 72, pp. 99-112.
- (1982) 'Truncation, the international firm and regional policy', Area, 14, pp. 277-82.
- Hayter, R. and Watts, H.D.** (1983) 'The geography of enterprise: A reappraisal', Progress in Human Geography, 7, pp. 157-81.
- Healey, M.** (1981) 'Product changes in multi-plant enterprises', Geoforum, 12, pp. 359-70.
- (1983) 'Components of locational change in multi-plant enterprises', Urban Studies, 20, pp. 327-41.
- Helliwell, J.F.** (1984) 'Natural resources and the Australian economy', In Caves, R.E. and Krause, L.B. (eds) The Australian Economy: A View From the North. Allen & Unwin, Sydney.
- Henderson, J.W.** (1986) 'The new international division of labour and American semiconductor production in southeast Asia', In Multinational Corporations and the Third World. Dixon, C.J., Drakakis-Smith, D., and Watts, H.D. (eds), Croom Helm, London.
- Hertner, P. and Jones, G.** (1986) Multinationals: Theory and History. Gower Publishing, Aldershot, England.
- Holland, S.** (1976a) Capital Versus the Regions. Macmillian Press, London.
- (1976b) The Regional Problem. Macmillian Press, London.
- Hood, D.E.** (1987) 'Employment change in Tasmanian manufacturing, 1980-1985: An enterprise-based approach', Australian Geographer, 18, pp. 149-161.
- Hood, D.E. and Wilde, P.D.** (1986) 'The performance of non-locally owned and indigenous manufacturing firms in Tasmania, 1980-1985', Consultancy report submitted to the Tasmanian Development Authority, Hobart.
- Hood, N. and Young, S.** (1976) 'US investment in Scotland: Aspects of the branch factory syndrome', Scottish Journal of Political Economy, 33, pp. 279-94.

- Howells, J.R.L.** (1984) 'The location of research and development: Some observations and evidence from Britain', Regional Studies, 18, pp. 13-29.
- Imrie, R.F.** (1987) 'Work decentralisation from large to small firms: A preliminary analysis of subcontracting', Environment and Planning A, 18, pp. 949-65.
- Industrial Equity Limited** (1980-1987) Annual Report, 19 Martin Place, Sydney.
- Industries Assistance Commission** (1981) 'Approaches to general reductions in protection', Information Paper No. 3. Australian Government Publishing Service, Canberra.
- (1982) Annual Report, 1981-82. Australian Government Publishing Service, Canberra.
- (1983) Annual Report, 1982-83. Australian Government Publishing Service, Canberra.
- (1984) Annual Report, 1983-84. Australian Government Publishing Service, Canberra.
- (1985) Annual Report, 1984-85. Australian Government Publishing Service, Canberra.
- Ironside, R.G. and Fairbairn, K.J.** (1977) 'The peace river region: An evaluation of a frontier economy', Geoforum, 8, pp. 39-49.
- J. Gadsden Australia Limited** (1985) 'Company profile', Corporate publication, J. Gadsden Australia Ltd, 42 Dudley St., West Melbourne.
- Jackson, R.W.** (1984) 'An evaluation of alternative measures of regional industrial diversification', Regional Studies, 18, pp. 103-12.
- Jensen, R.C., West, G.R. and Smith, C.A.** (1984) 'The economic impact of a group of major Tasmanian industrial employers on the economy of Tasmania', Department of Economics, University of Queensland, St. Lucia.
- Johns, B.L.** (1978) 'The production and transfer of technology', In Parry, T.G. (ed) Australian Industry Policy. Cheshire Longman, Melbourne.
- (1986) 'Factors shaping the industrial structures in Australia and overseas', In Revitalising Australian Industry: The Paths and Prospects For Long Term Growth. Bureau of Industry Economics, Sydney.
- Johns, B.L., Dunlop, W.C., and Sheehan, W.J.** (1983) Small Business in Australia: Problems and Prospects. Allen & Unwin, Sydney.
- Johnson & Johnson Company** (1987) Annual Report, Clifton, New Jersey.
- Joy, S.** (1977) 'Tasmanian railways: A report to the Minister for Transport, P.J. Nixon', Australian Government Publishing Service, Canberra.
- Kabaya, R.** (1971) 'Development of poor regions: General considerations and the case of Japan', Working Paper No. 159. Institute of Urban and Regional Development, University of California, Berkeley.
- Kaldor, N.** (1970) 'The case for regional policies', Scottish Journal of Political Economy, 17, pp. 337-47.

- Keeble, D.** (1968) 'Models of economic development', In Socio-Economic Models in Geography. Chorley, R.J. and Hagget, P. (eds), Methuen, London.
- (1978) 'Industrial geography', Progress in Human Geography, 2, pp. 318-23.
- Kellaway, R.G.** (1987) 'Launceston and the northeast', In Australians: Events and Places. Alpin, G, Foster, S.G. and McKernan, M. (eds), Fairfax, Syme and Weldon, Sydney.
- Kellerman, A.** (1985) 'The evolution of service economies: A geographical perspective', Professional Geographer, 37, pp. 133-43.
- Kemp, A.G.** (1981) 'History and development of the exclusive forest permit and licensing system', Paper presented to the Institute of Foresters of Australia, 20 June, Hobart.
- Kemp & Denning Limited** (1985-1987) Annual Report, 103 Melville St, Hobart.
- Kondratieff, N.D.** (1979) 'The long waves in economic life', Review, 11, pp. 519-62.
- Krause, L.B.** (1984) 'Australia's comparative advantage in international trade', In The Australian Economy: A View From The North. Caves, R.E. and Krause, L.B. (eds) Allen & Unwin, Sydney.
- Laver, P.** (1986) 'Australia's industrial future in a less regulated environment', In Revitalising Australian Industry: The Paths and Prospects for Long Term Growth. Bureau of Industry Economics, Conference Papers and Proceedings, Sydney, 8-9 April, Australian Government Publishing Service, Canberra.
- Lawriwsky, M.** (1978) 'Ownership and control of Australian corporations', Occasional Paper No. 1. Transnational Corporations Research Project, University of Sydney.
- Le Heron, R.B.** (1980) 'Exports and linkage development in manufacturing firms: The example of export promotion in New Zealand', Economic Geography, 56, pp. 281-99.
- (1985) 'Changing private-state relations during an era of exotic afforestation', 1960-1985', Paper presented at the 13th New Zealand Geography Conference.
- (1986) 'Dynamic pacific rim links of New Zealand forest product companies: Conceptualizing organisational and industrial change in a global context', Paper presented at the Australia-Canada workshop of industrial geographers, Vancouver.
- Lewis, D.E.** (1986) 'The Swedish manufacturing sector: Lessons for Australia?', In Work, Leisure and Technology. Castle, R., Lewis, D.E. and Mangan, J. (eds), Longman Cheshire, Melbourne.
- Lewis, P.** (1987) 'Spatial and structural changes in West European papermaking', In Industrial Change in Advanced Economies. Hamilton, F.E.I. (ed), Croom Helm, London.
- Lewis, J.R. and Williams, A.M.** (1984) 'The development of small-scale manufacturing enterprises in central Portugal', Interim report to the Calouste Gulbenkian Foundation. Department of Geography, University of Durham.

- Linge, G.J.R.** (1975) 'The forging of an industrial nation: Manufacturing in Australia 1788-1913', In Spatial Perspectives on Industrial Organisation and Decision-Making. Powell, J.M. and Williams, N. (eds), Wiley, London.
- (1979a) 'Australian manufacturing in recession: A review of the spatial implications', Environment and Planning A, 11, pp. 1405-1430.
- (1979b) Industrial Awakening: A Geography of Australian Manufacturing 1788 to 1890. Australian National University Press, Canberra.
- (1986) 'Peripheralisation and industrial change', Paper presented at the conference of the IGU Commission on Industrial Change, Chinchón, Spain.
- Linter Group Limited** (1985) Annual Report, 56 Pitt St., Sydney.
- Lloyd, P.E. and Mason, C.M.** (1984) 'Spatial variations in new firm formation in the United Kingdom: Comparative evidence from Merseyside, Greater Manchester and South Hampshire', Regional Studies, 18, pp. 207-20.
- Lloyd, P.E. and Shutt, J.** (1983) 'Recession and restructuring in the north west region: The policy implications of recent events', Working Paper No. 13, North West Industry Research Unit, School of Geography, University of Manchester.
- Locksley, G. and Ward, T.** (1979) 'Concentration in manufacturing in the EEC', Cambridge Journal of Economics, 3, pp. 91-7.
- Logan, M.I., Whitelaw, J.S., and McKay, J.** (1981) Urbanization: The Australian Experience. Shillington House, Melbourne.
- Lohrey, A. and Goldin P.** (1983) 'Labour and industry in Tasmania', Discussion Paper written for the Tasmanian Labor Party, Hobart.
- Lydall, H.F.** (1958) 'Aspects of competition in manufacturing industry', Bulletin of the Oxford Institute of Economics and Statistics, 20, pp. 319-37.
- Malecki, E.J.** (1980) 'Corporate organization of R&D and the location of technological activities', Regional Studies, 14, pp. 219-34.
- Management And Investment Companies Licensing Board** (1987) Annual Report, 1985-86. Australian Government Publishing Service, Canberra.
- Mandel, E.** (1973) Capitalism and Regional Disparities. New Hogtown Press, Toronto.
- Mangan, J.** (1986) 'Australian manufacturing: De-industrialisation or restructuring?', In Work, Leisure and Technology. Castle, R., Lewis, D, and Mangan, J, (eds). Longman Cheshire, Melbourne.
- Markusen, A.R.** (1979) 'Regionalism and the capitalist state: The case of the United States', Kapitalistate, 7, pp. 39-62.
- Marshall, J.N.** (1979) 'Ownership, organization and industrial linkage: A case study in the Northern Region of England', Regional Studies, 13, pp. 531-57.
- (1980) 'Spatial variations in manufacturing industry demand for business services: Some implications for government economic policies', Discussion Paper No. 35, Centre for Urban and Regional Development Studies, The University of Newcastle upon Tyne

- (1982a) 'Organizational theory and industrial location', Environment and Planning A, 14, pp. 1667-83.
- (1982b) 'Linkages between manufacturing industry and business services', Environment and Planning A, 14, pp. 1523-40.
- Marx, K.** Capital. Volume I-III, 3rd. edition, International Publishers, New York, 1978.
- Mason, C.M.** (1983) 'Some definitional difficulties in new firms research', Area, 15, pp. 53-59.
- (1984) 'Small business in the recession: A follow-up study of new manufacturing firms in South Hampshire', Discussion Paper No. 25, Department of Geography, University of Southampton.
- Mason, C.M. and Harrison, R.T.** (1985) 'The geography of small firms in the UK: Towards a research agenda', Progress in Human Geography, 9, pp. 1-37.
- Massey, D.** (1978a) 'Regionalism: Some current issues', Capital and Class, 6, pp. 106-25.
- (1978b) 'Capital and locational change: The UK electrical engineering and electronics industries', Review of Radical Political Economics, 10, pp. 39-54.
- (1979) 'In what sense a regional problem?', Regional Studies, 13, pp. 233-43.
- (1984) Spatial Divisions of Labour: Social Structures and the Geography of Production. Methuen, New York.
- (1985) 'New directions in space', in Social Relations and Spatial Structures. Gregory, D. and Urry, J. (eds), Macmillan, London.
- Massey, D. and Meegan, R.A.** (1979a) 'The geography of industrial reorganization', Progress in Human Geography, 10, pp. 155-237.
- (1979b) 'Labour productivity and regional employment change', Area, 11, pp. 137-45.
- Matthews, R.D.** (1981) 'An examination of development and dependency in Nova Scotia', Occasional Paper No. 8, Regional and Urban Studies Centre, Institute of Public Affairs, Dalhousie University.
- (1983) The Creation of Regional Dependency. University of Toronto Press, Toronto.
- Matthews, K. and Valentine, T.** (1986) 'The Australian foreign exchange market 1983-86', The Economic Record, Centre for Studies in Money, Banking and Finance, Macquarie University, N.S.W.
- Mawson, J. and Miller, D.** (1982) 'Agencies in regional and local development', Paper presented at the conference of the Regional Studies Association, University of Manchester.
- McDermott, P.J.** (1974) 'Market linkage and spatial monopoly in New Zealand Manufacturing', New Zealand Geographer, 30, 1-17.



(1976) 'Ownership, organization and regional dependence in the Scottish electronics industry', Regional Studies, 10, pp. 319-35.

(1977) 'Regional variations in enterprise: Electronics firms in Scotland, London and the outer metropolitan area', Unpublished Ph.D. thesis, University of Cambridge.

**McDermott, P.J. and Taylor, M.J.** (1976) 'Attitudes, images and location: The subjective context of decision-making in New Zealand manufacturing', Economic Geography, 52, pp. 325-47.

(1982) Industrial Organisation and Location. Cambridge University Press, Cambridge.

**McKay, J.** (1986) 'The role of industry in the development strategies of small island nations of the pacific', Paper presented to the IGU Commission on Industrial Change, Chinchon, Spain.

**McLoughlin, P.** (1985) 'Industrial restructuring and its relationship to small business in non-metropolitan Victoria', Journal of Australian Political Economy, 19, pp. 49-61.

**Meier, G.M.** (1953) 'Economic development and the transfer mechanism: Canada, 1895-1913', The Canadian Journal of Economics and Political Science, 19, pp. 1-19.

**Mera, K.** (1975) Income Distribution and Regional Development. University of Tokyo Press, Tokyo.

**The Hobart Mercury** (1985) 'Woodchip industry is volatile', 7 February, p. 9.

(1987) '\$150m worldbeater: EZ plans huge investment to make Risdon the biggest and best', 18 May, p. 1.

(1987) 'APM asks Canberra for help', 29 September, p. 14.

**Mitchell, D.J.B.** (1984) 'The Australian labour market', In Caves, R.E. and Krause, L.B. (eds) The Australian Economy: A View From The North. Allen & Unwin, Sydney.

**Monier Limited** (1984-1986) Annual Report, The Monier Building, Chatswood, NSW.

**Moore, D.G.** (1959) 'Management strategies', In Industrial Man. Warner, W.L. and Martin, N.H. (eds), Harper, London.

**Moore, B.C., Rhodes, J. and Tyler, P.** (1982) 'The growth of employment in the inner and outer cities of the six largest conurbations in the United Kingdom, 1951-76', Discussion Paper No. 7, Department of Land Economy, University of Cambridge.

**Morgan, H.M.** (1986) 'The nature of trade union power', in Arbitration in Contempt. Published from the proceedings of the inaugural seminar of the H.R. Nicholls Society, Melbourne.

**Morphet, C.S.** (1987) 'Research, development and innovation in the segmented economy: Spatial implications', In New Technology and Regional Development. Van Der Knapp, B. and Weaver, E. (eds), Croom Helm, London.

- Morris, J.L.** (1987) 'Industrial restructuring, foreign direct investment, and uneven development: the case of Wales', Environment and Planning A, 19, pp. 205-24.
- Mullins, P.** (1980) 'Australian urbanization and Queensland's underdevelopment: A first empirical statement', International Journal of Urban and Regional Research, 4, pp. 212-38.
- Neville, J.W.** (1985) 'The disaster of private sector research and development in Australia', Working Paper No. 81, Centre for Applied Economic Research, The University of New South Wales, Sydney.
- Nimmo, J.F.** (1976) 'Report of the commission of inquiry into transport to and from Tasmania', Australian Government Publishing Service, Canberra.
- North, D.C.** (1955) 'Location theory and regional economic growth', Journal of Political Economy, 63, pp. 243-58.
- (1961) The Economic Growth of the United States: 1790-1860. Prentice-Hall, Englewood Cliffs, New Jersey.
- North Broken Hill Holdings Limited** (1979-1987) Annual Report, 360 Collins St., Melbourne.
- Northern Region Strategy Team** (1977) Strategic Plan For The Northern Region: Economic Development Policies. H.M.S.O., London.
- Norton, R.D. and Rees, J.** (1979) 'The product life cycle and the spatial decentralization of American manufacturing', Regional Studies, 13, pp. 141-51.
- Oakey, R.** (1983a) High Technology Industry and Industrial Location: The Instruments Industry Example. Gower, London.
- (1983b) 'New technology, government policy and regional manufacturing employment', Area, 15, pp. 61-65.
- Oakey, R.P., Thwaites, A.T., and Nash, P.A.** (1980) 'The regional distribution of innovative manufacturing establishments in Britain', Regional Studies, 14, pp. 235-53.
- O'Connor, K.** (1986) 'The restructuring process under constraints: A study of recent economic change in Australia', Paper presented to the Regional Science Association annual meeting, Sydney.
- O'Farrell, P.N.** (1985) 'Employment change in manufacturing: The case of surviving plants', Urban Studies, 22, pp. 57-67.
- O'Farrell, P.N. and Crouchley, R.** (1985) 'Employment change in permanent manufacturing plants: Analysis and implications from an Irish case study', Environment and Planning A, 17, pp. 333-53.
- Organisation for Economic Cooperation and Development** (1987) Economic Outlook, 41, OECD, Paris.
- Oster, G.** (1979) 'A factor analytic test of the theory of the dual economy', Review of Economics and Statistics, 61, pp. 33-39.

- Park, S. and Wheeler, J. (1983)** 'The filtering down process in Georgia: The third stage in the product life cycle', Professional Geographer, 35, pp. 18-31.
- (1984) 'The role of industrial organization in change in manufacturing in a peripheral region of the US', Tijdschrift voor Economische en Sociale Geografie, 75, pp. 22-35.
- Parliament of Tasmania (1972)** Forest Regeneration: Report of Select Committee of the Legislative Council. Tasmanian Government Printer, Hobart.
- Parsons, G.F. (1972)** 'Giant manufacturing corporations and balanced regional growth in Britain', Area, 4, pp. 99-108.
- Peck, F. and Townsend, A. (1984)** 'Contrasting experience of recession and spatial restructuring: British Shipbuilders, Plessey and Metal Box', Regional Studies, 18, pp. 319-38.
- Penouil, M. (1969)** 'An appraisal of regional development policy in the Aquitaine Region', in Backward Areas in Advanced Economies. Robinson, E.A.G. (ed), Macmillan, London.
- Playford, J. and Kirsner, D. (eds) (1972)** Australian Capitalism: Towards a Socialist Critique. Penguin, Auckland.
- Pollock, N.C. (1960)** 'Industrial development in East Africa', Economic Geography, 36, pp. 344-54.
- Pred, A. (1965)** 'Industrialization, initial advantage, and American metropolitan growth', Geographical Review, 55, pp. 158-85.
- (1976) 'The interurban transmission of growth in advanced economies: Empirical findings versus regional-planning assumptions', Regional Studies, 10, pp. 151-71.
- Rainnie, A. (1985)** 'Small firms, big problems: The political economy of small businesses', Capital and Class, 25, pp. 42-56.
- Rattigan, A. (1986)** Industry Assistance: The Inside Story. Melbourne University Press, Melbourne.
- Renfrew, K.M., Sheehan, W.J. and Dunlop, W.C. (1985)** 'Financing and growth of small businesses in Australia', Australian Government Publishing Service, Canberra.
- Repco Corporation Limited (1985)** Annual Report, 630 St. Kilda Road, Melbourne.
- Review of Radical Political Economics (1978)** 'Uneven regional development: An introduction to this issue', Review of Radical Political Economics, 10, pp. 1-12.
- Rheem Australia Limited (1986)** 'Profile of company operations', Corporate publication, Rheem Australia Ltd, Margret Street, Sydney.
- Rich, D.C. (1981)** 'Structural change in Australian manufacturing: An analysis of employment and productivity', In Structural Change in Australia: Some Spatial and Organisational Responses. Linge, G.J.R. and McKay, J. (eds), Publication HG/15, Department of Human Geography, Research School of Pacific Studies, Australian National University, Canberra.

- (1983) 'Regional variations in productivity in Australian manufacturing', Australian Geographer, 15, pp. 407-11.
- (1987) The Industrial Geography of Australia. Methuen, North Ryde, N.S.W.
- (1988) 'Australian manufacturing, 1968-1988: Recession, reorganisation and renewal', Geo Journal (forthcoming)
- Richardson, G.B.** (1972) 'The organisation of industry', Economic Journal, 82, 883-896.
- Richardson, H.W.** (1973) Regional Growth Theory. Macmillan, London.
- Ricketts, M.J.** (1987) The Economics of Business Enterprise: New Approaches to the Firm. Harvester Press, Sussex.
- Rostow, W.W.** (1964) Views From the Seventh Floor. Johns Hopkins Press, New York.
- Row, M.** (1980) 'The Huon Timber Company and the Crown: A tale of resource development', Tasmanian Historical Research Association Papers and Proceedings, 27, pp. 87-102.
- Ryder, A.** (1985) 'Slab cutting increases grade recovery and profit', Australian Forest Industries Journal, 12, pp. 25-27.
- S.A. Brewing Holdings Limited** (1985-1987) Annual Report, 107 Port Rd., Adelaide, South Australia.
- Sack, R.D.** (1974) 'The spatial separatist theme in geography', Economic Geography, 50, pp. 1-19.
- (1980) Conceptions of Space in Social Thought. Macmillan, London.
- Salvatore, D.** (1972) 'The operation of the market mechanism and regional inequality', Kyklos, 25, pp. 518-36.
- Sant, M.E.C.** (1974) 'Interregional industrial movement: The case of non-survivors', In Commemorative Essays in Honor of S.H. Beaver. Longmans, London.
- Sargent, S.** (1985) The Foodmakers. Penguin, Ringwood, Victoria.
- Sayer, A.** (1982) 'Explanation in geography: Abstraction versus generalization', Progress in Human Geography, 6, pp. 68-88.
- (1984) Method in Social Science: A Realist Approach. Hutchinson, London.
- (1985a) 'Realism and geography', In The Future of Geography. Johnston, R.J. (ed), Methuen, London.
- (1985b) 'Industry and space: A sympathetic critique of radical research', Environment and Planning D: Society and Space, 3, pp. 3-29.
- (1985c) 'The difference that space makes', in Social Relations and Spatial Structures. Gregory, D, and Urry, J. (eds), Macmillan, London.

- Schamp, E.W.** (1987) 'Business services for manufacturers: Demand behaviour by enterprises in lower Saxony', In Industrial Change in Advanced Economies. Hamilton, F.E.I. (ed), Croom Helm, Sydney.
- Scott, A.J.** (1984) 'Industrial organisation and the logic of intra-metropolitan location: A case study of the women's dress industry in the Greater Los Angeles Area', Economic Geography, 60, pp. 3-27.
- Sinclair, R. and Walker, D.F.** (1982) 'Industrial development via the multinational corporation: General Motors in Vienna', Regional Studies, 16, pp. 433-42.
- Smith, I.** (1979) 'The effect of external takeovers on manufacturing employment change in the Northern Region between 1963 and 1973', Regional Studies, 13, pp. 421-37.
- Snape, R.H.** (1977) 'Protection and the future of Australian manufacturing', Australian Economic Review, 37, pp. 85-90.
- Southern Farmers Group Limited** (1987) Annual Report, 212 Pirie St., Adelaide.
- Steed, G.P.F.** (1971) 'Internal organisation, firm integration, and location change, 1954-64', Economic Geography, 3, pp. 371-83.
- Stephens, J.D. and Holly, B.P.** (1981) 'City system behaviour and corporate influence: The headquarters location of US industrial firms, 1955-75', Urban Studies, 18, pp. 285-300.
- Stilwell, F.J.B.** (1974) 'Economic factors and the growth of cities', In Urbanization in Australia. Burnley, I.H. (ed), Cambridge University Press, Cambridge.
- (1982) 'Capital accumulation and regional economic performance: The Australian experience', Australian Geographical Studies, 20, pp. 131-143.
- (1983) 'State and capital in urban and regional development', In State and Economy in Australia. Head, B. (ed), Oxford University Press, Melbourne.
- Storey, D.J.** (1981) 'New firm formation, employment change and the small firm: The case of Cleveland County', Urban Studies, 18, pp. 335-45.
- (1982) Entrepreneurship and the New Firm. Croom Helm, London.
- (ed) (1983) The Small Firm: An International Survey. Croom Helm, London.
- Susman, P.H.** (1981) 'Regional restructuring and transnational corporations', Antipode, 13, pp. 15-24.
- Tasmanian Development Authority** (1984-1987) Annual Reports. Tasmanian Government Printing Office, Hobart.
- (1985) Tasmanian Manufacturers Directory. Tasmanian Government Printing Office, Hobart.
- Taylor, M.J.** (1983) 'Business organisation segmentation and the functioning of the Fiji economy', Report to the Fiji Employment and Development Mission, Suva.
- (ed) (1984a) The Geography of Australian Corporate Power. Croom Helm, Sydney.

(1984b) 'Industrial geography and the business organisation', In The Geography of Australian Corporate Power. Taylor, M.J. (ed), Croom Helm, Sydney.

(1984c) 'Industrial geography', Area, 8, pp. 263-74.

(1984d) 'Business organisations and transfer of value: Examples from Fiji', In Uneven Development and the Geographical Transfer of Value. Forbes, D.K. and Rimmer, P.J. (eds), Human Geography Monograph No. 16, Research School of Pacific Studies, The Australian National University, Canberra.

(1985) 'The product-cycle model: A critique', Department of Human Geography, Research School of Pacific Studies, The Australian National University, Canberra.

(1986) 'Multinationals, business organisations and the development of the Fiji economy', In Multinationals and the Restructuring of the World Economy. Taylor, M.J. and Thrift, N.J. (eds), Croom Helm, Kent.

(1987a) 'Enterprise and the product-cycle model: Conceptual ambiguities', In New Technology and Regional Development. van der Knapp, G.A. and Wever, E. (eds), Croom Helm, Kent.

(1987b) 'Policy implications of variations in regional manufacturing and enterprise structure', Paper presented to the 22nd IAG Conference, Australian Defence Force Academy, Canberra.

**Taylor, M.J. and Kissling, C.C. (1983)** 'Resource dependence, power networks and the airline systems of the South Pacific', Australian Geographical Studies, 17, pp. 237-50.

**Taylor, M.J. and Thrift, N.J. (1980)** 'Large corporations and concentration of capital in Australia: A geographical analysis', Economic Geography, 56, pp. 261-80.

(1981a) 'Organization, location and political economy: Towards a geography of business organizations', Discussion Paper No. 38, Centre for Urban and Regional Development Studies, The University of Newcastle upon Tyne.

(1981b) 'Some geographical implications of foreign investment in the semi-periphery: The case of Australia', Tijdschrift voor Economische en Sociale Geographie, 72, pp. 194-213.

(1982a) 'Industrial linkage and the segmented economy: 1. Some theoretical proposals', Environment and Planning A, 14, pp.1601-13.

(1982b) 'Industrial linkage and the segmented economy: 2. An empirical reinterpretation', Environment and Planning A, 14, pp. 1615-32.

(eds) (1982c) The Geography of Multinationals: Studies in the Spatial Development and Economic Consequences of Multinational Corporations. Croom Helm, London.

(1983a) 'The historical geography of financial and industrial organization: A submodal approach', Department of Human Geography, The Australian National University, Canberra.

(1983b) 'Industrial geography in the 1980s: Entering a decade of differences', Environment and Planning A, 15, 1287-91.

- (1983c) 'Business organisation segmentation and location', Regional Studies, 17, pp. 445-66.
- (1983d) 'Industrial organisation and the segmented economy: The case of the UK electronics industry', Paper presented to the Association of American Geographers conference, Denver.
- (1984) 'The regional consequences of a dualistic industrial structure: The case of Australia', Australian Geographical Studies, 22, pp. 72-87.
- (eds) (1986) Multinationals and the Restructuring of the World Economy. Croom Helm, London.
- Thirlwall, A.P.** (1982) 'De-industrialisation in the United Kingdom', Lloyds Bank Review, 144, pp. 22-37.
- Thompson, J.H. and Leyden, D.R.** (1983) 'Small firms in the United States of America', In The Small Firm: An International Survey. Storey, D.J. (ed), Croom Helm, London.
- Thrift, N.J.** (1985) 'Taking the rest of the world seriously? The state of British urban and regional research in a time of economic crisis', Environment and Planning A, 17, pp. 7-24.
- Thwaites, A.T.** (1977) 'Indicators of entrepreneurship in the northern region', Discussion Paper No. 2, Centre for Urban and Regional Development Studies, The University of Newcastle upon Tyne.
- (1978a) 'The future development of research and development activity in the northern region', Discussion Paper No. 10, Centre for Urban and Regional Development Studies, The University of Newcastle upon Tyne.
- (1978b) 'Technological change, mobile plants and regional development', Regional Studies, 12, pp. 445-461.
- Tödtling, F.** (1984) 'Organizational characteristics of plants in core and peripheral regions of Austria', Regional Studies, 18, pp. 397-412.
- Tolbert, C., Horan, P.M., and Beck, E.M.** (1980) 'The structure of economic segmentation: a dual economy approach', American Journal of Sociology, 85, pp. 1095-1116.
- Tomkins, C. and Lovering, J.** (1973) Location, Size, Ownership and Control Tables for Welsh Industry. Welsh Council, Cardiff.
- Townroe, P.M.** (1971) 'Industrial location decisions', Occasional Paper No. 15, Centre for Urban and Regional Studies, University of Birmingham.
- (1972) 'Some behavioural considerations in the industrial location decision', Regional Studies, 6, pp. 261-272.
- (1975) 'Branch plants and regional development', Town Planning Review, 46, pp. 47-62.
- Tsokhas, K.** (1984) A Class Apart? Businessmen and Australian Politics, 1960-1980. Oxford University Press, Melbourne.

- Turnbull, S.** (1981) 'Tasmanian power options for industrial development', Report commissioned by the Business Association for Economical Power, Hobart.
- Udell, J.G.** (1969) 'Social and economic consequences of the merger movement in Wisconsin', Wisconsin Economy Studies No. 3, School of Business Administration, University of Wisconsin, Madison.
- Unisys Corporation** (1987) Info. company magazine, January, Detroit.
- United Milk Tasmania Limited** (1983-1987) Annual Report, Caroline Street, East Devonport, Tasmania.
- Urry, J.** (1985) 'Social relations, space and time', In Social Relations and Spatial Structures. Gregory, D., and Urry, J. (eds), Macmillan, London.
- van der Knapp, G.A. and Wever, E.** (eds) (1987) New Technology and Regional Development. Croom Helm, Kent.
- Veltmeyer, H.** (1978) 'The underdevelopment of Atlantic Canada', Review of Radical Political Economics, 10, pp. 95-105.
- Vernon Report** (1965) Report of the Vernon Committee of Economic Inquiry. Australian Government Publishing Service, Canberra.
- Vining, D.R.** (1986) 'Population redistribution towards core areas of less developed countries, 1950-1980', Industrial Regional Science Review, 10, pp. 37-44.
- Wadley, D.A. and Rich, D.C.** (1983) 'The Australian industrial system 1950-81: Review and classified bibliography', Occasional Paper No. 13, Department of Geography, University of Tasmania, Hobart.
- Walker, B.B.** (1981) 'Opting for wood production', Paper presented to the Institute of Foresters of Australia, 20 June, Hobart.
- Walker, D.F.** (1975) 'Governmental influence on manufacturing location: Canadian experience with special reference to the Atlantic Provinces', Regional Studies, 9, pp. 203-17.
- Walker, R.A.** (1978) 'Two sources of uneven development under advanced capitalism: Spatial differentiation and capital mobility', The Review of Radical Political Economics, 10, pp. 28-38.
- Walker, R.A. and Storper, M.** (1981) 'Capital and industrial location', Progress in Human Geography, 5, pp. 473-509.
- Walters, R. and Dippelsman, R.** (1985) 'Estimates of depreciation and capital stock in Australia', Australian Bureau of Statistics, Occasional Paper No. 1985/3, Australian Government Publishing Service, Canberra.
- Watanabe, S.** (1971) 'Subcontracting, industrialisation and employment creation', International Labour Review, 104, 51-76.
- Watkins, M.H.** (1973) 'Resources and underdevelopment', In Canada Ltd.: The Political Economy of Dependency. Laxer, R.M. (ed), McClelland & Stuart, Toronto.
- (1975) 'Economic development in Canada', In World Inequality. Wallerstein, I. (ed), Black Rose Books, Montreal.



- Watts, H.D.** (1972) 'Further observation on regional growth and large corporations', Area, 4, pp. 269-73.
- (1975) 'Lager brewing in Britain', Geography, 60, pp. 139-45.
- (1980) The Large Industrial Enterprise. Croom Helm, London.
- (1981) The Branch Plant Economy: A Study of External Control. Longman Group, Ltd., New York.
- (1982) 'The inter-regional distribution of West German multinationals in the United Kingdom', in The Geography of Multinationals. Taylor, M.J. and Thrift, N.J. (eds), Croom Helm, London.
- (1987) Industrial Geography. Longman Group, Ltd., New York.
- Watts, H.D. and Stafford, H.A.** (1986) 'Plant closure and the multiplant firm: Some conceptual issues', Progress in Human Geography, 10, pp. 206-227.
- Webber, M.J. and Foot, S.P.H.** (1984) 'The measurement of unequal exchange', Environment and Planning A, 16, pp. 927-47.
- Weeks, J.** (1982) 'Equilibrium, uneven development and the tendency of the rate of profit to fall', Capital and Class, 16, pp. 62-77.
- Westaway, J.** (1974a) 'Contact potential and the occupational structure of the British urban system 1961-66: An empirical study', Regional Studies, 8, pp. 57-73.
- (1974b) 'The spatial hierarchy of business organizations and its implications for the British urban system', Regional Studies, 8, pp. 145-55.
- Wheelwright, E.L.** (1972) 'Concentration of private economic power', In Playford, J. and Kirsner, D. (eds) Australian Capitalism: Towards a Socialist Critique. Penguin, Auckland.
- Wilde, P.D.** (1975) 'Journey to work regions', Working Paper for the State Planning Task Force, Tasmania, Town and Country Planning Commission, Hobart.
- (1979) 'Industrial change and employment problems in Tasmania', Australian Bulletin of Labour, 5, pp. 36-55.
- (1980) 'Industrial Structure and Change in Tasmania', Occasional Paper No. 7, Department of Geography, The University of Tasmania, Hobart.
- (1981a) 'Industrial change, structural adjustment and the periphery: The case of Tasmania', In Linge, G.J.R. and McKay, J. (eds) Structural Change in Australia: Some Spatial and Organisational Responses. Publication HG/15, Department of Human Geography, Research School of Pacific Studies, Australian National University, Canberra.
- (1981b) 'From insulation towards integration: The Australian industrial system in the throes of change', Pacific Viewpoint, 22, pp. 1-24.
- (1984) 'Industrial and occupational change in Tasmania's employment structure, 1971-81', Report prepared for the Government of Tasmania, Department of Geography, University of Tasmania, Hobart.

- (1986) 'Economic restructuring and Australia's changing role in the world economic system', In Industrialization in Developing and Peripheral Regions. Hamilton, F.E.I. (ed), Croom Helm, London.
- (1988) 'Implications of Pacific industrialisation for Australian structural change', In Industrial Challenge and Transformation in Australia and Canada. Hayter, R. and Wilde, P.D. (eds), Carleton University Press, Ottawa.
- Wilde, P.D. and Fagan, R.H.** (1988) 'Industrial geography in Australia: Restructuring in theory and practice', Australian Geographical Studies, 26 (forthcoming).
- Williams, S.W.** (1981) 'Realism, marxism and human geography', Antipode, 13, pp. 31-38.
- Wonnacott, R.J.** (1964) 'Wage levels and employment structure in United States regions: A free trade precedent', Journal of Political Economy, 72, pp. 414-19.
- Wood, L.J.** (1987) 'The legal production of narcotic materials in Australia', Australian Geographer, 18, pp. 161-65.
- Wood, L.J. and Kirkpatrick, J.B.** (1984) 'The allocation of rights to public forests in Tasmania: A geographical perspective', Applied Geography, 4, pp. 215-234.
- Wood, P.A.** (1978) 'Industrial organisation, location and planning', Regional Studies, 12, pp. 143-152.
- (1982) 'Industrial geography', Progress in Human Geography, 6, pp. 576-83.
- (1986) 'The anatomy of job loss and job creation: Some speculations on the role of the 'producer service' sector', Regional Studies, 20, pp. 37-46.
- Yamanaka, T. and Kobayashi, Y.** (1957) 'The history and structure of Japan's small and medium industries - with two specific surveys', Economic Series No. 15, Science Council of Japan, Division of Economics and Commerce, Tokyo.

## **APPENDIX A1**

### **DETAILS OF THE TASMANIAN MANUFACTURING SURVEY**

## **A1 DETAILS OF THE TASMANIAN MANUFACTURING SURVEY**

Appendix A1 presents information relative to the manufacturing survey used in the thesis research. Three specific items are included:

1. The cover letters sent to each local manager, by the Tasmanian Development Authority and the Tasmanian Chamber of Industries, prior to scheduling the interview.
2. The Tasmanian Manufacturing Survey. For administrative purposes separate questionnaires were printed for indigenous and non-locally owned enterprises. The questionnaire presented in this appendix applies specifically to non-locally owned firms. The questionnaire used during interviews with indigenous managers is identical apart from references made to the 'parent firm based outside Tasmania'.
3. Prompt cards used during each interview to facilitate responses to several detailed questions.

Additional details concerning the administration of the survey are provided in section 2.8.

**TASMANIAN  
DEVELOPMENT  
AUTHORITY**

Dear Mr.

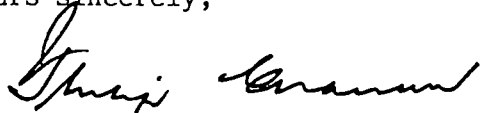
I am writing to inform you that Mr. David Hood is currently undertaking a survey of manufacturing firms in Tasmania, and will soon be in touch to arrange an interview with your firm. The survey is supported by both the Tasmanian Development Authority and the University of Tasmania, where Mr. Hood is completing his postgraduate studies.

The purpose of the survey is to discover the ways in which the operation and organization of firms has changed over the last five years, and what factors have helped or hindered growth. The improved understanding of these issues which will result from the project should be of value to us all.

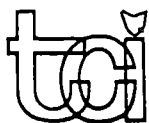
Your firm was included as one of 150 manufacturing firms in Tasmania randomly selected. The interview, which should take no more than an hour, would best be carried out with either yourself or another senior executive who would be knowledgeable of the firm's operations since 1980. All information gathered in the survey will be considered strictly confidential and under no circumstances will any details concerning individual firms be given out or published in any way.

Mr. Hood will contact you soon, in order to arrange a suitable appointment for the interview. I would be most grateful if you would help him in every way possible.

Yours sincerely,



Philip Chandler  
Managing Director



# tasmanian chamber of industries

Northern Office 93 Cameron St., Launceston  
P O Box 1086 Launceston 7250  
Telephone (003) 31 6744

HOBART OFFICE

Registered Office 242 Liverpool St., Hobart  
G P O Box 793H, Hobart, Tasmania 7001  
Phone (002) 34 5933 Telex 57210

Please note that Mr. David Hood is currently conducting a survey of manufacturing firms in Tasmania.

The survey is supported by the Tasmanian Development Authority and the University of Tasmania where Mr. Hood is completing his post-graduate studies.

The purpose of the survey is to discover the ways in which the operation and organisation of firms has changed over the last five years, and what factors have helped or hindered growth. The improved understanding of these issues which will result from the project should be of value to us all.

Your firm was included as one of 150 manufacturing firms in Tasmania randomly selected. The interview, which should take no more than an hour, would best be carried out with either yourself or another senior executive who would be knowledgeable of the firm's operations since 1980. All information gathered in the survey will be considered strictly confidential and under no circumstances will any details concerning individual firms be given out or published in any way.

The Tasmanian Chamber of Industries supports Mr. Hood's survey and we seek your co-operation in assisting him in this study programme. Mr. Hood will contact you soon, in order to arrange a suitable appointment for the interview. I would be most grateful if you would help him in every way possible.

Yours sincerely,

E.C. Iles  
Executive Director

ECI:ec

# The University of Tasmania



## TASMANIAN MANUFACTURING SURVEY

Date of interview: \_\_\_\_\_

Firm name: \_\_\_\_\_

Address/phone: \_\_\_\_\_

Person(s) interviewed: \_\_\_\_\_

Position in firm: \_\_\_\_\_

Non-local

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**TASMANIAN  
DEVELOPMENT  
AUTHORITY**

## INTRODUCTION

The purpose of this survey is to gain information about manufacturing in Tasmania, focusing upon the operations of individual establishments within firms. The survey is primarily concerned with changes in activity since 1980. At present, very little is known about the processes underlying growth or decline in various types of firms. The ultimate goal of the survey is to better understand what factors contribute to the growth of firms in Tasmania.

The survey is part of a larger study being undertaken by myself at the University of Tasmania, and is partly financed by the Tasmanian Development Authority.

Your firm was chosen as part of a random sample of 150 firms in Tasmania.

All information gathered in this survey will be considered STRICTLY CONFIDENTIAL and under no circumstances will details concerning individual firms be given out or published in any way.

Throughout the survey there are three items which are often referred to: The Tasmanian operation, the establishment and the firm.

Tasmanian operation - consists of all activities (eg. mfg, retail, wholesale, etc.) undertaken by this concern and its subsidiaries in Tasmania.

The establishment - refers to a specific site location at which the Tasmanian operation has a plant, retail outlet, office, storage facility, etc. Thus, the Tasmanian operation may consist of several separate establishments, consisting of either branches or subsidiaries.

The Firm - defines the company or group of companies which may own or control the Tasmanian operation.



To begin the survey, I would like to talk about the basic structure of the Tasmanian operation.

1. Is the Tasmanian operation a:
  1. ☐ Branch of a firm registered outside Tasmania
  2. ☐ Subsidiary of a firm registered outside Tasmania
  3. ☐ Other (specify) \_\_\_\_\_
  
2. (a) How many establishments does the Tasmanian operation have in Tasmania, on the mainland and overseas? No. \_\_\_\_\_  
(b) Where is each of these establishments located?  
(c) When was each establishment made a part of the Tasmanian operation?  
(d) Is each establishment a branch or subsidiary of the Tasmanian operation?  
(e) Does the Tasmanian operation own, lease or rent each of these sites?  
(f) What activities are undertaken at each establishment? (CARD 1)  
(g) What products are produced at each establishment which is involved in manufacturing activities?

(b) Establishment Location	(c) Date	(d) Branches or Subsidiaries	(e) Own, rent or Lease?	(f) Activity Code	(g) Products

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

Establishment Location:

1. Hobart (southern/eastern)
2. Launceston (northern)
3. Burnie/Devonport (N.W., west)
4. Mainland
5. Overseas

Branch/Subsidiary:

1. Head office
2. Branch
3. Subsidiary

Activity Code:

1. Manufacturing
2. Retail
3. Storage/transport
4. Office
5. Subcontracting
6. R & D
7. Other

Site Control:

1. Own
2. Rent/Lease

3. (a) How was the Tasmanian operation initially established? (CARD 2)
1. ☐ Originated in Tasmania
  2. ☐ Relocated in Tasmania from elsewhere
  3. ☐ Established as a branch/subsidiary of a firm located outside Tasmania
  4. ☐ Other (please state) \_\_\_\_\_

- (b) Has the current ownership or structure of the Tasmanian operation been altered by takeover or merger since the Tasmanian operation was initially established?

☐ yes    ☐ no

If yes, provide details \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- (c) Have manufacturing activities always been an important part of your operations in Tasmania?

☐ yes    ☐ no

If no, which other activities was the Tasmanian operation primarily concerned with?

\_\_\_\_\_

- (d) How long has the Tasmanian operation acted as a manufacturer in Tasmania?

\_\_\_\_\_ years    \_\_\_\_\_ months

4. (a) (BRANCHES ONLY)  
Where is the office or offices outside Tasmania, to which the Tasmanian operation or individual establishments are directly responsible? (GO TO 5)
- \_\_\_\_\_
- (b) (SUBSIDIARY ONLY)  
What is the name of the FIRM, under which this subsidiary operates?
- \_\_\_\_\_
5. Where is the Australian head office of this FIRM located?
- \_\_\_\_\_
6. Which of the following best describes the legal status of the FIRM, to which the Tasmanian operation belongs? (CARD 3)
1. ☐ Single proprietor
  2. ☐ Partnership
  3. ☐ A registered company  
    ☐ privately owned  
    ☐ publicly owned
  4. ☐ A subsidiary  
    ☐ privately owned  
    ☐ publicly owned
  5. ☐ Other (specify)

The next two questions concern the types of inputs used (for example, whether they are raw materials, semi-manufactured components, etc.), the level of processing undertaken and the form of the final products as sold by the Tasmanian operation.

I would like to ask these questions based upon what you consider to be your basic product groups rather than about individual products.

(PROMPT)

7. What was each product group's percentage contribution to the total value of sales of products (including transfers) manufactured by the Tasmanian operation in:

(a) 1984-85

(b) 1979-80

	Product Group	% Of Total Sales	
		1984-85	1979-80
1.			
2.			
3.			
4.			
5.			
6.			

8. Within each product group:

- (a) Are the inputs to the manufacturing process primarily raw materials, semi-manufactured or finished components?
- (b) What % of the material inputs (by value) are purchased in Tasmania?
- (c) What level of processing is involved? (CARD 4)
- (d) What form is the product in when sold or transferred out, by the Tasmanian operation? (CARD 5)
- (e) What % of the manufactured output is sold in the following areas? (CARD 6)

Product Group	(a) Input Form	(b) % Purchased Tasmania	(c) Process Level	(d) Final Form	(e)				
					% Sold Tasmania			% Sold Mainland	% Sold Overseas
					S	N	NW		
1.									
2.									
3.									
4.									
5.									
6.									

Primary

Secondary

Product group: 3 digit code

Input form: 1. raw material  
2. semi-manufactured  
3. finished components

Processing: 1. continuous, standardized  
2. batch production  
3. one-off, small scale orders  
4. other (including combinations)

Final Form: 1. semi-manufactured to be further processed elsewhere.  
2. fabricated components to be assembled elsewhere.  
3. final product.

9. Concerning the material inputs used by the Tasmanian operation in 1984-85:

- (a) What were the 3 inputs accounting for the largest share of the total cost of all inputs purchased?
- (b) What % of total material costs did each of these inputs represent?
- (c) For each input, how many suppliers were used?
- (d) Where are these suppliers located?
- (e) What % of each input did you purchase from each supplier?
- (f) How long has the Tasmanian operation used each supplier?

	(a) Input	(b) % Share Tot. Cost	(c) # Of Suppliers	(d) Supplier's Location	(e) % Purchased From This Supplier	(f) How Long
1.						
2.						
3.						

Supplier's Location: 1. Northern Tasmania  
 2. Southern and eastern Tasmania  
 3. Northwest and western Tasmania  
 4. Mainland  
 5. Overseas

How Long: Years

10. Is there another branch of the FIRM outside Tasmania that produces the same product or products as the Tasmanian operation?

[ ] yes [ ] no (If No, Go To 11)

(a) If yes, what are these products? \_\_\_\_\_

(b) Where else are these products produced? \_\_\_\_\_

(c) Why are these products produced at both/several locations?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

11. Does the Tasmanian operation produce any products which other branches of the FIRM do not produce?

[ ] yes [ ] no (If No, Go To 12)

(a) If yes, what are these products? \_\_\_\_\_

(b) Why are these products only produced in Tasmania?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(c) What % of your total sales in 1984-85 were accounted for by these products?

\_\_\_\_\_

12. Does the Tasmanian operation use any inputs supplied by this FIRM's branches located outside Tasmania?

[ ] yes [ ] no (If No, Go To 13)

(a) If yes, what are these inputs? \_\_\_\_\_

(b) What % of the total value of inputs did these represent in 1984-85?

\_\_\_\_\_

13. Do any branches of the FIRM located outside Tasmania use inputs supplied by the Tasmanian operation?

[ ] yes [ ] no (If No, Go To 14)

(a) If yes, what are these inputs? \_\_\_\_\_

(b) What % of your total turnover did these transfers represent in 1984-85?  
\_\_\_\_\_

- N2 14. Within the Tasmanian operation, are there establishments which supply other establishments with inputs?

[ ] yes [ ] no (If No, Go To 15)

(a) If yes, what are these inputs?

(b) Which establishments do they come from?

(c) Which establishments use them?

	Input	Source Estabs.	User Estabs.
1.			
2.			
3.			
4.			

15. Since 1980, have any new products been added to the Tasmanian operation's product line?

[ ] yes [ ] no (If No, Go To 16)

- (a) If yes, what are these products?  
(b) When were they first introduced?  
(c) Were they previously produced elsewhere in the FIRM, outside Tasmania?

	(a) Products	(b) Date	(c) Source
1.			
2.			
3.			
4.			
5.			

Products: 1. within current product line.  
2. new product group

Source: 1. Transfer of product  
2. Branch of product  
3. First produced in Tasmania

16. Since 1980, have any products been discontinued by the Tasmanian operation?

[ ] yes [ ] no (If No, Go To 17)

- (a) If yes, what were these products?  
(b) When were they discontinued?  
(c) Why were these products discontinued?

	(a) Products	(b) Date	(c) Reason
1.			
2.			
3.			
4.			
5.			

Products: 1. within major product group  
2. outside major product group

Reason: 1. part of larger rationalization  
2. not profitable/low demand  
3. expansion into new products  
4. following establishment closure  
5. other



One of the survey's objectives is to establish how different kinds of firms sell their products, and why they have their current pattern of sales. The next few questions concern the method of sales used by the Tasmanian operation.

17. Which of the following sales methods did the Tasmanian operation use in 1984-85? (CARD 7)

1. Wholesalers

☐ yes    ☐ no

If yes, how many wholesalers were used? \_\_\_\_\_

What % of total sales were taken by wholesalers? \_\_\_\_\_

Where did they sell your products? \_\_\_\_\_

2. Direct to Retailers

☐ yes    ☐ no

If yes, how many retailers handled your products? \_\_\_\_\_

What % of total sales were taken by retailers? \_\_\_\_\_

Where did they sell your products? \_\_\_\_\_

3. Direct to Public by The Tasmanian Operation

☐ yes    ☐ no

What % of total sales were direct to the public? \_\_\_\_\_

Does the Tasmanian operation normally carry out the installation of its products?

☐ yes    ☐ no

4. Government Agencies in Tasmania

☐ yes    ☐ no

What % of total sales were taken by govt. agencies in Tas.? \_\_\_\_\_

5. Government Agencies on the Mainland

☐ yes    ☐ no

What % of total sales were taken by govt. agencies on the mainland? \_\_\_\_\_

6. Other Manufactuirng Firms Not Associated With The Tasmanian Operation.

[ ] yes [ ] no

What % of total sales were taken by these firms? \_\_\_\_\_

Were goods sold to manufacturing firms in Tasmania, on the mainland or overseas?

[ ] Tasmania [ ] Mainland [ ] Overseas

7. Other Establishments Within The Firm, Located Outside Tasmania.

[ ] yes [ ] no

What % of total sales were transfered to these establishments? \_\_\_\_\_

18. Why does the Tasmaian Operation have this current pattern of sales?

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The survey is also interested in several aspects of investment by the Tasmanian operation.

19. Has the Tasmanian operation made any major investments since 1980?

☐ yes ☐ no (If No, Go To 20)

(a) If yes, did this include investment in:

1. ☐ land (Go To g)
2. ☐ building (Go To g)
3. ☐ transport equipment (Go To b)
4. ☐ production machinery (Go To b) (PROMPT)
5. ☐ other non-production machinery (Go To b)
6. ☐ other (specify)

(b) Did this involve the replacement of older equipment or adding additional equipment to your operations?

☐ replacement ☐ additional

(c) Did this equipment result in upgrading the technology used in your operations?

☐ yes ☐ no

(d) Was output increased as a result of this investment?

☐ yes ☐ no

(e) How, if at all, did this investment affect your employment level?

(PROMPT)

(f) Was this equipment new or used?

☐ new ☐ used

(g) Was this investment purchased or leased?

☐ purchased ☐ leased

(h) What was the value of this investment? (CARD 8)

- |                                       |  |
|---------------------------------------|--|
| 1. <input type="checkbox"/> < \$5,000 | 7. <input type="checkbox"/> 75-100,000       |
| 2. <input type="checkbox"/> 5-10,000  | 8. <input type="checkbox"/> 100-250,000      |
| 3. <input type="checkbox"/> 10-20,000 | 9. <input type="checkbox"/> 250-500,000      |
| 4. <input type="checkbox"/> 20-30,000 | 10. <input type="checkbox"/> 500-750,000     |
| 5. <input type="checkbox"/> 30-50,000 | 11. <input type="checkbox"/> 750 - 1 million |
| 6. <input type="checkbox"/> 50-75,000 | 12. <input type="checkbox"/> > 1 million     |

(i) At which establishment was this investment undertaken?

---

(j) At which establishment was the decision made to undertake this investment?

---

(k) What was the major source used to finance this investment? (CARD 9)

1. ☐ internal funds of the Tasmanian operation
2. ☐ funds from the FIRM, to which the Tas. operation belongs
3. ☐ new partners or shareholders
4. ☐ trading bank
5. ☐ finance company (including hire-purchase)
6. ☐ Commonwealth Development Bank
7. ☐ assurance society or superannuation fund
8. ☐ savings bank or building society
9. ☐ merchant bank
10. ☐ government agency or department
11. ☐ personal loan (from a person not assoc. with the Tas. op.)
12. ☐ trade customer or trade supplier in Tasmania
13. ☐ trade customer or trade supplier located outside Tasmania
14. ☐ other (specify)

(1) What other sources of finance were used? \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

	(a) Invest. Type	(b) Replace/ Add.	(c) Upgrade Tech.	(d) Output Change	(e) Employ. Change	(f) New/ Used	(g) Purchased/ Leased	(h) Value	(i) Invest. Location	(j) Source	(k-1) Finance Maj/Min.
1.											
2.											
3.											
4.											
5.											
6.											
7.											

Replace/Add: 1. replacement  
2. addition

New/Used: 1. new  
2. used

Upgrade Technology: 1. yes  
2. no

Purchased/leased: 1. purchase  
2. lease

Increased Output: 1. yes  
2. no

Location: 1. head office  
2. branch  
3. subsidiary

Employment Change: 1. decrease  
2. increase  
3. no change

Decision source: 1. the FIRM  
2. Tas. H.O.  
3. at invest. location

20. Has a firm decision been made to undertake any major investments in the near future?

[ ] yes [ ] no (If No, Go To 21)

(a) If yes, what type of investment is it?

1. [ ] land (Go To d)
2. [ ] building (Go To d)
3. [ ] transport (Go To d)
4. [ ] production machinery
5. [ ] other, non-production machinery or equipment
6. [ ] other (specify)

(b) Will this involve replacement of older equipment or adding additional equipment to your operations?

[1] replacement [2] additional

(c) Will this equipment result in upgrading the technology used in your operations?

[1] yes [2] no

(d) Will your level of output change as a result of this investment?

[1] increase  
[2] decrease  
[3] no change

(e) How, if at all, will your employment level change as a result of this investment?

[1] increase  
[2] decrease  
[3] no change

(f) What will be the total value of this investment? (CARD 8)

- |                  |                         |
|------------------|-------------------------|
| 1. [ ] < \$5,000 | 7. [ ] 75-100,000       |
| 2. [ ] 5-10,000  | 8. [ ] 100-250,000      |
| 3. [ ] 10-20,000 | 9. [ ] 250-500,000      |
| 4. [ ] 20-30,000 | 10. [ ] 500-750,000     |
| 5. [ ] 30-50,000 | 11. [ ] 750 - 1 million |
| 6. [ ] 50-75,000 | 12. [ ] > 1 million     |

	(a) Invest. Type.	(b) Replace/ Add.	(c) Upgrade Tech.	(d) Output Change	(e) Employ. Change	(f) Value
1.						
2.						
3.						

21. What is the current total value of assets (including land, buildings, machinery and equipment) in Tasmania? (CARD 10)

- |                    |                         |
|--------------------|-------------------------|
| 1. [ ] < \$10,000  | 8. [ ] 300-500,000      |
| 2. [ ] 10-25,000   | 9. [ ] 500 - 1 million  |
| 3. [ ] 25-50,000   | 10. [ ] 1 - 2 million   |
| 4. [ ] 50-75,000   | 11. [ ] 2 - 5 million   |
| 5. [ ] 75-100,000  | 12. [ ] 5 - 10 million  |
| 6. [ ] 100-200,000 | 13. [ ] 10 - 20 million |
| 7. [ ] 200-300,000 | 14. [ ] > 20 million    |

22. Since 1980, have specific functions such as sales, promotions, personnel etc., been shifted from the Tasmanian operation to other branches or subsidiaries of the FIRM located outside Tasmania?

[ ] yes [ ] no (If No, Go To 23)

(a) If yes, on how many occasions? \_\_\_\_\_

(b) Which functions were involved?

(c) Where were they transferred from?

(d) Where were they transferred to?

(e) What was the resulting employment change here in Tasmania?

(f) Why were these functions moved out of Tasmania?

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	(a) Date of Event	(b) Functions Involved	(c) Trans. From	(d) Trans. To	(e) Employment Change in Tasmania			
					Manager.	Admin.	Prod.	Other
1.								
2.								
3.								

23. Since 1980, have specific functions such as sales, promotions, personnel, etc., been shifted from branches or subsidiaries of the FIRM located outside Tasmania to the Tasmanian operation?

[ ] yes [ ] no (If No, Go To 24)

- (a) If yes, on how many occasions? \_\_\_\_\_
- (b) Which functions were involved?
- (c) Where were they transferred from?
- (d) Where were they transferred to?
- (e) What was the resulting change in employment here in Tasmania?
- (f) Why were these functions transferred to Tasmania?

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	(a) Date of Event	(b) Functions Involved	(c) Trans. From	(d) Trans. To	(e) Employment Change in Tasmania			
					Manager.	Admin.	Prod.	Other
1.								
2.								
3.								



N2 24. Since 1980, have specific functions within the Tasmanian operation been shifted between establishments?

☐ yes    ☐ no    (If No, Go To 25)

- (a) If yes, on how many occasions? \_\_\_\_\_
- (b) Which functions were involved?
- (c) Where were they transferred from?
- (d) Where were they transferred to?
- (e) What was the resulting change in employment at both the origin and destination of the transfer?
- (f) Why were these functions transferred between establishments?

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[illegible]

The next few questions deal with the usage of computers and communications equipment. The study is interested in determining how this equipment benefits firms.

25. Are any of the establishments of the Tasmanian operation linked to the FIRM outside Tasmania via a computer based network?

☐ yes    ☐ no    (If No, Go To 26)

(a) If yes, where is the host computer located? \_\_\_\_\_

(b) Which establishments in Tasmania have access to this network?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

(c) What activities is this network primarily used for?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

(d) How long has this network been in operation? \_\_\_\_\_ years

(e) When this system was installed, how did it affect the structure of the Tasmanian operation?

[illegible]

N2 26. Are any of the establishments within the Tasmanian operation linked to one another via a computer based network?

☐ yes    ☐ no    (If No, Go To 27)

(a) If yes, where is the host computer located? \_\_\_\_\_

(b) Which establishments have access to this network?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

(c) What activities is this network primarily used for?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4.

(d) How long has this network been in operation? \_\_\_\_\_ years

(e) When this system was installed, how did it affect the structure of the Tasmanian operation?

\_\_\_\_\_

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27.(a) Which of the following communications technologies does the Tasmanian operation use on a regular basis? (CARD 11)

1. ☐ telex
2. ☐ facsimile
3. ☐ computer based text transmission
4. ☐ private phone line (Go To c)
5. ☐ postal bag/air courier (Go To c)
6. ☐ telecom datel service (Go To c)
7. ☐ none (Go To 28)

(b) Is this equipment located on-site?

1. ☐ yes    2. ☐ no

If yes, where is it located? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(c) What activity is this primarily used for? (CARD 12a)

1. ☐ contact with trade customers
2. ☐ contact with trade suppliers
3. ☐ contact with other establishments within the Tas. operation
4. ☐ contact with the FIRM, located outside Tasmania
5. ☐ other (specify) \_\_\_\_\_

(d) How long has this been used?

	(a) Type	(b) On-Site?	(c) Activity	(d) How Long
1.				
2.				
3.				
4.				
5.				

The next section of the survey deals with business services. Of particular concern is who undertakes them (the Tasmanian operation, the mainland Head Office, or another firm), and where they are done.

28. Where is each of the following services normally carried out for the Tasmanian operation? (CARD 12b)

	Tasmania		Mainland		Don't Use
	In-House	Other Firm	In-House	Other Firm	
Advertising					
Accounts Payable					
Accounts Receivable					
Other Accounting (tax.)					
Payroll					
Personnel Recruitment					
Market Research					
R & D					

29. Since 1980 how, if at all, has the responsibility for these services changed? (STILL CARD 12b)

	RESPONSIBILITY			LOCATION		
	External to In-House	In-House to External	No Change	Tas. to Mainland	Mainland Tasmania	No Change
Advertising						
Accounts Payable						
Accounts Receivable						
Other Accounting						
Payroll						
Personnel Recruitment						
Market Research						
R & D						

30.(a)Where within the organization are the following decisions made concerning: (CARD 13)

	TAS. ESTABS.		TAS H.O.		Tas. Op. With H.O. APPROVAL		NON LOCAL H.O.		OTHER	
	85	80	85	80	85	80	85	80	85	80
Number of shifts										
Level of production										
Location of product sales										
Sales method										
Source of inputs										
Level of raw stock										
Level of finished stock										
Product design										
Advertising										
Pricing policy										
Executive recruitment										
Labour replacement										
Labour redundancy										
Choice of subcontractors										
Choice of firms to supply business servs.										

(b)If the place within the organization where these decisions are made was different in 1980, please give details.

31. Does the Tasmanian operation have any specific dollar purchasing limits, above which requires approval from the mainland head office?

[ ] yes [ ] no (If No, Go To 32)

- (a) If yes, to what types of purchasing does this apply? (eg. raw materials, business services, use of subcontractors, etc.) and what are the limits?

	Purchasing Types	Dollar Limits
1.		
2.		
3.		

The next group of questions have to do with the nature of subcontract and franchise activities undertaken by the Tasmanian operation.

32. Does the Tasmanian operation take on subcontract work?

[ ] yes [ ] no (If No, Go To 34)

(a) If yes, what was the % of total turnover resulting from subcontract work in:

1984-85 \_\_\_\_\_ (if < 10%, Go To 34)

1982-83 \_\_\_\_\_

1979-80 \_\_\_\_\_

(b) In 1984-85, what was the total % of subcontract income represented by the five most important customers?

\_\_\_\_\_ % (If  $\geq$  50%, Go To 33) [If < 50%, Go To 34]

33. Concerning the five customers accounting for the largest % share of subcontract income realized by the Tasmanian operation in 1984-85:

(a) Who were these five firms?

(b) Where are they located?

(c) What was each customer's % share of the total subcontract income realized by the Tasmanian operation?

(d) How long has each customer been an important source of subcontract income?

	(a) Customer	(b) Location	% Share Of Subcontract Income	(c) Income	How Long As Subcontract Customer	(d)
1.						
2.						
3.						
4.						
5.						



34. Does the Tasmanian operation subcontract work out to other firms?

[ ] yes [ ] no (If No, Go To 36)

(a) If yes, what was the % of total production costs resulting from work subcontracted out, in:

1984-85 \_\_\_\_\_ (if < 10%, Go To 36)

1982-83 \_\_\_\_\_

1979-90 \_\_\_\_\_

(b) What % of total subcontracting costs were taken by the five firms accounting for the largest % share of work subcontracted out by the Tasmanian operation in 1984-85?

\_\_\_\_\_ % (if  $\geq$  50%, Go To 35) [if < 50%, Go To 36]

35. Concerning the five firms accounting for the largest % share of work subcontracted out by the Tasmanian operation in 1984-85:

(a) Who were these five firms?

(b) Where are they located?

(c) What was each firm's % share of the total cost of all work subcontracted out by the Tasmanian operation?

(d) How long has each firm been an important agent for work subcontracted out by the Tasmanian operation?

	(a) Firm	(b) Location	% Share Of (c) Subcontract Costs	How Long As (d) Subcontract Agent
1.				
2.				
3.				
4.				
5.				

36. Does the Tasmanian operation act as a franchisee (or other similar function for another firm?
- [ ] yes [ ] no (If No, Go To 37)
- (a) If yes, how long has it been operating in this way? \_\_\_\_\_ years
- (b) Who is the franchisor? \_\_\_\_\_
- (c) In 1984-85, what % of your total sales were accounted for by products produced under this arrangement? \_\_\_\_\_ %

37. Does the Tasmanian operation act as franchisor (or other similar function) to other firms?
- [ ] yes [ ] no (If No, Go To 39)
- (a) If yes, which firm or firms act as a franchisee to the Tasmanian operation?
- (b) Where are these firms located?
- (c) How long has each firm acted as a franchisee to the Tasmanian operation?

	(a) Firm	(b) Location	(c) Time
1.			
2.			
3.			

38. In 1984-85, what was the value to the Tasmanian operation of all firms acting as franchisees or related functions? (CARD 14)
- |                   |                        |
|-------------------|------------------------|
| 1. [ ] < \$10,000 | 6. [ ] 100-250,000     |
| 2. [ ] 10-25,000  | 7. [ ] 250-500,000     |
| 3. [ ] 25-50,000  | 8. [ ] 500-750,000     |
| 4. [ ] 50-75,000  | 9. [ ] 750 - 1 million |
| 5. [ ] 75-100,000 | 10. [ ] > 1 million    |

39. Which of the following categories approximates the total value of sales (including products not produced by the Tasmanian operation) in: (CARD 15)

(a) The last financial year (1984-85)

(b) 1979-80

	(a) 1984-85	(b) 1979-80	\$
1.			< 10,000
2.			10-25,000
3.			25-50,000
4.			50-75,000
5.			75-100,000
6.			100-200,000
7.			200-300,000
8.			300-500,000
9.			500 - .1 million
10.			1 - 2 million
11.			2 - 5 million
12.			> 5 million

40. What would the % change in sales have been between the two time periods? (+) (-) \_\_\_\_\_%

41. In 1984-85, approximately what % of total sales were accounted for by goods actually produced by the Tasmanian operation?

\_\_\_\_\_%

The final two questions concern changes in employment at each establishment of the Tasmanian operation.

42. For each establishment, what was the average FULL-TIME and PART-TIME male and female employment for the year ending:

(a) 30 June 1985

(b) 30 June 1980 (5 years ago)

30 June 85\*

		FULL-TIME			PART-TIME		
Location		M	F	T	M	F	T
1.							
2.							
3.							
4.							
5.							

\* Figures Used: ( ) actual  
( ) class (CARD 17)

30 June 80 \*

		FULL-TIME			PART-TIME		
Location		M	F	T	M	F	T
1.							
2.							
3.							
4.							
5.							

\* Figures Used: ( ) actual  
( ) class (CARD 17)

(CARD 16)

43. What was the total\* average male and female employment in managerial, clerical, production, research and development, and other activities at each establishment for the year ending:

(a) 30 June 1985

(b) 30 June 1980

\*including full-time equivalents for part-time employees.

30 June 85\*

Location	Managerial			Clerical			Production			R & D			Other		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T

\*Figures Used: ( ) actual  
( ) class (CARD 17)

30 June 80

Location	Managerial			Clerical			Production			R & D			Other		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T

\*Figures Used: ( ) actual  
( ) class (CARD 17)

## **Information Cards**

During each interview, the respondent was handed the following cards in order to either:

1. clarify a particular question (cards 1-4, 7, 9, 12a, 13, and 16)
2. provide a range of responses from which an answer was to be selected (cards 5-6, 11, and 12b)
3. obtain a categorised response to sensitive questions (such as those relating to employment, turnover and investment) which the respondent declined to provide more detailed information (cards 8, 10, 14-15, and 17)

Cards given to respondents from locally owned enterprises were identical, however:

- Responses on cards 7, 9, 12a, 12b, and 13 which refer to 'the parent company outside Tasmania' were omitted.
- Card 3 was given only to respondents from non-locally owned enterprises

## **CARD 1**

### **ACTIVITIES UNDERTAKEN AT EACH ESTABLISHMENT**

1. Manufacturing
2. Retail
3. Storage/transport
4. Office
5. Subcontracting
6. Research and development
7. Other (specify)

**CARD 2**

INITIAL ESTABLISHMENT OF THE TASMANIAN OPERATION

1. Originated in Tasmania
2. Relocated in Tasmania from elsewhere
3. Established as a branch or subsidiary of a firm located outside of Tasmania
4. Other (please state)

**CARD 3**

LEGAL STATUS OF THE FIRM TO WHICH THE TASMANIAN OPERATION BELONGS

1. Single proprietor
2. Partnership
3. A registered company
  - 3a. privately owned
  - 3b. publicly owned
4. A subsidiary
  - 4a. privately owned
  - 4b. publicly owned
5. Other (specify)

**CARD 4**

LEVEL OF PROCESSING

1. Continuous standardised production
2. Batch production, dependent upon product orders
3. One-off, small scale production suited to individual product orders
4. Other [including combinations of above] (specify)

**CARD 5**

FORM OF FINAL PRODUCT

1. Semi-manufactured products to be further processed elsewhere
2. Fabricated components to be assembled elsewhere
3. Final product

**CARD 6**

LOCATION OF SALES, 1984-85

1. Southern and eastern Tasmania
2. Northern Tasmania
3. Northwest and western Tasmania
4. Mainland
5. Overseas

**CARD 7**

SALES METHODS

1. Wholesalers
2. Direct to retailers
3. Direct to the public by the Tasmanian operation
4. Government agencies in Tasmania
5. Government agencies on the mainland
6. Other manufacturing firms not associated with the Tasmanian operation
7. Other establishments within the parent firm, located outside Tasmania
8. Other (specify)

**CARD 8**

VALUE OF THE INVESTMENT

- |                |                     |
|----------------|---------------------|
| 1. < \$5,000   | 7. 75 - 100,000     |
| 2. 5 - 10,000  | 8. 100 - 250,000    |
| 3. 10 - 20,000 | 9. 250 - 500,000    |
| 4. 20 - 30,000 | 10. 500 - 750,000   |
| 5. 30 - 50,000 | 11. 750 - 1 million |
| 6. 50 - 75,000 | 12. > 1 million     |



**CARD 9**

FINANCE SOURCE

1. Internal funds of the Tasmanian operation
2. Funds of the parent firm, to which the Tasmanian operation belongs
3. New partners or shareholders
4. Trading bank
5. Finance company (including hire-purchase)
6. Commonwealth Development Bank
7. Assurance society or superannuation fund
8. Savings bank or building society
9. Merchant bank
10. Government agency or department
11. Personal loan (from a person not associated with the Tasmanian operation)
12. Trade customer or trade supplier in Tasmania
13. Trade customer or trade supplier located outside Tasmania
14. Other (please specify)

**CARD 10**

CURRENT TOTAL VALUE OF CAPITAL INVESTMENT IN TASMANIA BY THE TASMANIAN OPERATION (including land, buildings, machinery and equipment)

- |                  |                     |
|------------------|---------------------|
| 1. < \$10,000    | 8. 300 - 500,000    |
| 2. 10 - 25,000   | 9. 500 - 1 million  |
| 3. 25 - 50,000   | 10. 1 - 2 million   |
| 4. 50 - 75,000   | 11. 2 - 5 million   |
| 5. 75 - 100,000  | 12. 5 - 10 million  |
| 6. 100 - 200,000 | 13. 10 - 20 million |
| 7. 200 - 300,000 | 14. > 20 million    |

**CARD 11**

COMMUNICATIONS TECHNOLOGIES

1. Telex
2. Facsimilie
3. Computer based text processor
4. Private phone line

5. Postal bag/air courier
6. Telecom datel service
7. None of the above

**CARD 12a**

**COMMUNICATION ACTIVITIES**

1. Contact with trade customers
2. Contact with trade suppliers
3. Contact with other establishments within the Tasmanian operation
4. Contact with the parent firm, located outside Tasmania
5. Other (please specify)

**CARD 12b**

**WHERE SERVICES ARE UNDERTAKEN**

1. Tasmania, in-house
2. Tasmania, by another firm
3. Mainland, in-house
4. Mainland, by another firm
5. Do not use this service

**CARD 13**

**LOCATIONS OF DECISIONS WITHIN THE ORGANISATION**

1. Individual Tasmanian establishments
2. Tasmanian head office
3. Tasmanian operation, based upon non-local head office approval
4. Non-local head office
5. Other (please specify)

**CARD 14**

VALUE OF FRAHCNISEES. 1984-85

- |                 |                     |
|-----------------|---------------------|
| 1. < \$10,000   | 8. 100 - 250,000    |
| 2. 10 - 25,000  | 9. 250 - 500,000    |
| 3. 25 - 50,000  | 10. 500 - 750,000   |
| 4. 50 - 75,000  | 11. 750 - 1 million |
| 5. 75 - 100,000 | 12. > 1 million     |

**CARD 15**

VALUE OF TOTAL SALES FOR THE TASMANIAN OPERATION

(includes manufactured goods, services to other firms including subcontract work, and wholesale or retail sales of goods not produced by the Tasmanian operation)

- |                  |                    |
|------------------|--------------------|
| 1. < \$10,000    | 7. 200 - 300,000   |
| 2. 10 - 25,000   | 8. 300 - 500,000   |
| 3. 25 - 50,000   | 9. 500 - 1 million |
| 4. 50 - 75,000   | 10. 1- 2 million   |
| 5. 75 - 100,000  | 11. 2 - 5 million  |
| 6. 100 - 200,000 | 12. > 5 million    |

**CARD 16**

EMPLOYMENT TYPES

- |                           |  |
|---------------------------|--|
| Managerial:               | Those directly involved in decision making activities.   |
| Clerical:                 | Typists, receptionists, administrative employees.  |
| Production:               | Those physically involved in production activities.  |
| Research and Development: | Those primarily involved in product design and improvement, or the advancement of production technology. |
| Other:                    | Those primarily involved in transport, storage, retailing or maintenance activities.                     |

**CARD 17**

**EMPLOYMENT CATEGORIES**

1. 1-2	9. 35-39	17. 100-124	25. 400-449
2. 3-4	10. 40-44	18. 125-149	26. 450-499
3. 5-9	11. 45-49	19. 150-174	27. 500-549
4. 10-14	12. 50-59	20. 175-199	28. 550-599
5. 15-19	13. 60-69	21. 200-249	29. 600-649
6. 20-24	14. 70-79	22. 250-299	30. 650-699
7. 25-29	15. 80-89	23. 300-349	31. 700-749
8. 30-34	16. 90-99	24. 350-399	32. 750 +

**APPENDIX A2**  
**DETAILS OF THE WEIGHTING PROCEDURE APPLIED**  
**IN THE ANALYSIS**

Table A2.1 shows the weighting factors applied to single-site indigenous firms employing fewer than 100 persons. Weights are applied in sections 3.4, 5.2.2 and 6.3 in order to estimate the population of indigenous firms. Discussion of processes throughout the thesis, however, is based upon only the 81 indigenous enterprises included in the manufacturing survey. Details of the weighting procedure are provided in section 2.7.

**Table A2.1: Population Sample and Weighting Factors**

Data Base	Employment Group											
	1 - 9			10 - 25			26 - 50			51 - 99		
	Head Office Location			Head Office Location			Head Office Location			Head Office Location		
	Statistical Division			Statistical Division			Statistical Division			Statistical Division		
	South	North	N.W.	South	North	N.W.	South	North	N.W.	South	North	N.W.
Local Population	96	51	35	47	31	23	24	15	12	13	7	5
Local Sample	9	4	4	10	6	2	6	7	2	7	5	5
Weighting Factor	10.66	12.75	8.75	4.70	5.16	11.50	4.00	2.14	6.00	1.85	1.40	1.00

Source: Tasmanian Development Authority (1985)  
Tasmanian Manufacturing Survey, 1986